

From: Phillips, David
Sent: Thursday, November 06, 2014 2:18 PM
To: Meredith Holzer
Subject: RE: Oxford WWTP

Meredith,

I've secured the approval; we will anticipate OWWSB's response to the 9/26/14 CWA Section 308 information request on 11/21/14.

David R. Phillips

404-562-9773

CONFIDENTIALITY NOTICE: This message is intended exclusively for the individual(s) or entity(ies) to which it is addressed. This communication may contain information that is proprietary, privileged, or confidential or otherwise legally exempt from disclosure. If you are not the named addressee, you are not authorized to read, print, retain, copy, or disseminate this message or any part of it. If you have received this message in error, please notify the sender immediately by email and delete all copies of the message.

From: Meredith Holzer [mailto:mholzer@oxfordwater.com]
Sent: Thursday, November 06, 2014 8:17 AM
To: Phillips, David
Subject: RE: Oxford WWTP

David,

I would like to request an extension from November 12th to November 21st in order to ensure I have all of the information together to submit in our response due to having a crashed computer for 3 weeks. Would that be possible?

Thank you,
Meredith Holzer

1

From: Phillips, David
Sent: Wednesday, August 14, 2013 6:41 PM
To: Jones, Laurie
Cc: Armor, Suzanne
Subject: RE: Oxford WWTP comment letter

Categories: Record Saved - Shared

Laurie, can you ask ADEM if/when it posted the public notice for the August 22 draft permit for OWSB (AL0058408)?
We can't seem to find it here: <http://adem.alabama.gov/newsEvents/publicNotices.cnt>

Thanks,

David

2-9773

CONFIDENTIALITY NOTICE: This message is intended exclusively for the individual(s) or entity(ies) to which it is addressed. This communication may contain information that is proprietary, privileged, or confidential or otherwise legally exempt from disclosure. If you are not the named addressee, you are not authorized to read, print, retain, copy, or disseminate this message or any part of it. If you have received this message in error, please notify the sender immediately by email and delete all copies of the message.



Design 4.9 mgd

Annual avg. daily 2.81 mgd

Max daily Flow 4.74 mgd (97%)

NPDES Permit No. AL0058408
Page 3 of 27

PART I

DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

MAX in last

12 mo: 9.192 mgd

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

est. 100,000 gpd I/I

1. Outfall 001 Discharge Limits for Summer Season MAY - NOVEMBER

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 001 1, which is described more fully in the Permittee's application. Such discharge shall be limited for the months of MAY - NOVEMBER and monitored by the Permittee as specified below:

CODE	PARAMETER	Discharge Limitation*				Daily Maximum	Percent Removal	Monitoring Requirements *		
		Monthly Average	Weekly Average	Monthly Average	Weekly Average			(1) Sample Location	(2) Sample Type	(3) Measurem Frequency
00300 1 0 0	OXYGEN, DISSOLVED (DO)	*****	*****	*****	*****	6.0 mg/l	*****	E	GRAB	C
00400 1 0 0	PH	*****	*****	*****	*****	6.0 s.u.	*****	E	GRAB	C
00530 G 0 0	SOLIDS, TOTAL SUSPENDED	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	I	COMP24	C
00530 1 0 0	SOLIDS, TOTAL SUSPENDED	1225 lb/day	1838 lb/day	30.0 mg/l	45.0 mg/l	*****	*****	E	COMP24	C
00610 1 S 0	NITROGEN, AMMONIA TOTAL (AS N)	40.8 lb/day	61.2 lb/day	1.0 mg/l	1.5 mg/l	*****	*****	E	COMP24	G
00625 1 0 0	NITROGEN, TOTAL KJELDAHL	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	E	COMP24	G
00630 1 0 0	NITRITE PLUS NITRATE, TOTAL	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	E	GRAB	H
00665 1 0 0	PHOSPHORUS, TOTAL	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	E	GRAB	C
01113 1 0 0	CADMIUM, TOTAL RECOVERABLE	*****	*****	Report mg/l	*****	Report mg/l	*****	E	GRAB	C
01124 1 0 0	LEAD, TOTAL RECOVERABLE	*****	*****	Report mg/l	*****	Report mg/l	*****	RS	GRAB	A
01290 > 0 0	COLOR (ADMI UNITS)	*****	*****	*****	*****	Report MGD	*****	I or E	CONTIN	C
50050 1 0 0	FLOW, IN CONDUIT OR THROUGH TREATMENT PLANT	Report MGD	*****	*****	*****	*****	*****	E	GRAB	Q
50060 1 0 0	CHLORINE, TOTAL RESIDUAL	*****	*****	*****	*****	0.08 mg/l	*****	E	COMP24	Q
61426 1 0 0	TOXICITY CERIODAPENIA, CHRONIC	*****	Pass - 0 Fail - 1	*****	*****	*****	*****	E	COMP24	Q
61428 1 0 0	TOXICITY PIMEPHALES, CHRONIC	*****	Pass - 0 Fail - 1	*****	*****	*****	*****	E	GRAB	C
74055 1 0 0	COLIFORM, FECAL GENERAL	*****	*****	(FC)	*****	*****	2000 col/100ml	I	COMP24	C
80082 G 0 0	BOD, CARBONACEOUS 55 DAY, 20C	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	E	COMP24	C
80082 1 S 0	BOD, CARBONACEOUS 55 DAY, 20C	326 lb/day	490 lb/day	8.0 mg/l	12.0 mg/l	*****	85.0 %	K	CALCTD	G
80091 K 0 0	BOD, CARBONACEOUS 55 DAY, 20C, PERCENT REMOVAL	*****	*****	*****	*****	*****	85.0 %	K	CALCTD	G
81011 K 0 0	SOLIDS, SUSPENDED PERCENT REMOVAL	*****	*****	*****	*****	*****	*****	*****	*****	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)

** Monitoring Requirements

(1) Sample Location

I - Influent

E - Effluent

X - End Chlorine Contact Chamber

K - Percent Removal of the Monthly Avg. Influent Concentration from the

Monthly Avg. Effluent Concentration.

RS - Receiving Stream

(2) Sample Type

CONTIN - Continuous

INSTAN - Instantaneous

COMP-8 - 8-Hour Composite

COMP24 - 24-Hour Composite

GRAB - Grab

CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.

A - 7 days per week

B - 5 days per week

C - 3 days per week

D - 2 days per week

E - 1 day per week

F - 2 days per month

G - 1 day per month

H - 1 day per quarter

J - Annual

Q - For Chronic Toxicity Testing, see Provision IV.

(FC) Monthly Limit:

October through May -

1000 col/100ml

June through September -

200 col/100 ml

2. Outfall 001 Discharge Limits for Winter Season DECEMBER - APRIL

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 001 which is described more fully in the Permittee's application. Such discharge shall be limited for the months of DECEMBER - APRIL and monitored by the Permittee as specified below:

CODE	PARAMETER	Discharge Limitation*						Monitoring Requirements*			
		Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency
00300 1 0 0	OXYGEN, DISSOLVED (DO)	*****	*****	*****	*****	6.0 mg/l	*****	*****	E	GRAB	C
00400 1 0 0	PH	*****	*****	*****	*****	6.0 s.u.	9.0 s.u.	*****	E	GRAB	C
00530 G 0 0	SOLIDS, TOTAL SUSPENDED	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	*****	I	COMP24	C
00530 G 0 0	SOLIDS, TOTAL SUSPENDED	1225 lb/day	1838 lb/day	30.0 mg/l	45.0 mg/l	*****	*****	*****	E	COMP24	C
00530 1 0 0	SOLIDS, AMMONIA TOTAL (AS N)	817 lb/day	1225 lb/day	20.0 mg/l	30.0 mg/l	*****	*****	*****	E	COMP24	C
00610 1 W 0	NITROGEN, TOTAL Kjeldahl	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	*****	E	COMP24	G
00625 1 0 0	NITROGEN, NITRATE, TOTAL	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	*****	E	COMP24	G
00630 1 0 0	NITRATE, TOTAL	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	*****	E	COMP24	G
00665 1 0 0	PHOSPHORUS, TOTAL RECOVERABLE	*****	*****	Report mg/l	*****	*****	Report mg/l	*****	E	GRAB	H
01113 1 0 0	CADMIUM, TOTAL RECOVERABLE	*****	*****	Report mg/l	*****	*****	Report mg/l	*****	E	GRAB	H
01114 1 0 0	LEAD, TOTAL RECOVERABLE	*****	*****	*****	*****	*****	Report mg/l	*****	E	GRAB	H
01290 > 0 0	COLOR (ADMI UNITS)	*****	*****	*****	*****	*****	80.0 ADMI	*****	RS	GRAB	C
50050 1 0 0	FLOW, IN CONDUIT OR THROUGH TREATMENT PLANT	Report MGD	*****	*****	*****	*****	Report MGD	*****	I or E	CONTIN	A
50060 1 0 0	CHLORINE, TOTAL RESIDUAL	*****	*****	*****	*****	*****	0.08 mg/l	*****	E	GRAB	C
61426 1 0 0	TOXICITY CERiodaphnia, CHRONIC	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q
61428 1 0 0	TOXICITY FISHRALES, CHRONIC	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q
74055 1 0 0	COLIFORM, FECAL GENERAL	*****	*****	(FC)	*****	*****	2000 col/100ml	*****	E	GRAB	C
80082 G 0 0	BOD, CARBONACEOUS 5 DAY, 20C	Report lb/day	Report lb/day	Report mg/l	Report mg/l	*****	*****	*****	I	COMP24	C
80082 1 W 0	BOD, CARBONACEOUS 5 DAY, 20C	1021 lb/day	1532 lb/day	25.0 mg/l	37.5 mg/l	*****	*****	*****	E	COMP24	C
80091 K 0 0	BOD, CARBONACEOUS 5 DAY, 20 DEG C, PERCENT REMVL	*****	*****	*****	*****	*****	*****	85.0 %	K	CALCTD	G
81011 K 0 0	SOLIDS, SUSPENDED PERCENT REMOVAL	*****	*****	*****	*****	*****	*****	85.0 %	K	CALCTD	G

* See Part ILC.1. (Bypass); Part ILC.2. (Upset)

** Monitoring Requirements

(1) Sample Location

I - Influent

E - Effluent

X - End Chlorine Contact Chamber

K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.

RS - Receiving Stream

(FC) Monthly Limit

October through May -
June through September -

(2) Sample Type:

CONTIN - Continuous

INSTAN - Instantaneous

COMP-8 - 8-Hour Composite

COMP24 - 24-Hour Composite

GRAB - Grab

CALCTD - Calculated

(3) Measurement Frequency. See also Part I.B.2.

A - 7 days per week

B - 5 days per week

C - 3 days per week

D - 2 days per week

E - 1 day per week

F - 2 days per month

G - 1 day per month

H - 1 day per quarter

J - Annual

Q - For Chronic Toxicity Testing, see Provision

1000 col/100ml
200 col/100ml

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition, and the Permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the Permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. NOTICE TO DIRECTOR OF INDUSTRIAL USERS

1. The Permittee shall not allow the introduction of wastewater, other than domestic wastewater, from a new direct discharger prior to approval and permitting, if applicable, of the discharge by the Department.
2. The Permittee shall not allow an existing indirect discharger to increase the quantity or change the character of its wastewater, other than domestic wastewater, prior to approval and permitting, if applicable, of the increased discharge by the Department.
3. The Permittee shall report to the Department any adverse impact caused or believed to be caused by an indirect discharger on the treatment process, quality of discharged water, or quality of sludge. Such report shall be submitted within seven days of the Permittee becoming aware of the adverse impacts. MARCH 2008 ...

H. PROHIBITIONS

The Permittee shall not allow, and shall take effective enforcement action to prevent and terminate, the introduction of any of the following into its treatment works by industrial users:

1. Pollutants which create a fire or explosion hazard in the treatment works;
2. Pollutants which will cause corrosive structural damage to the treatment works, or dischargers with a pH lower than 5.0 s.u., unless the works are specifically designed to accommodate such discharges;
3. Solid or viscous pollutants in amounts which will cause obstruction of flow in sewers, or other interference with the treatment works;
4. Pollutants, including oxygen demanding pollutants, released in a discharge of such volume or strength as to cause interference in the treatment works;
5. Heat in amounts which will inhibit biological activity in the treatment plant resulting in interference or in such quantities that the temperature of the treatment plant influent exceeds 40°C (104° F) unless the treatment plant is designed to accommodate such heat; and
6. Pollutants in amounts which exceed any applicable pretreatment standard under Section 307 of FWPCA or any approved revisions thereof.

COMMUNICATION RECORD:

To:	From:	Date:
File	David Phillips	12/3/2012
		Time: 3pm

Subject: Call to ADEM to discuss their pending NOV and Oxford permit.

w/ Laurin Jones on line.

Summary of Communication:

NOV - Kronosgen

ADEM intends to issue NOV for: discharging w/o permit, no totalizer for flow, not submitting DMRs for July-Sept; not submitting report for formaldehyde w/in 45 days. Will require submission in 30 days. Intend to issue now.

I informed Daphne Sment about heat problems w/ Kronosgen. She said they will get data in response. I told her we would likely take an action for that.

Permit

Discussed draft renewal permit for Oxford. Raised concerns w/:

Color - ADAM uses 80 ADAM across board. Will 'look into' data collected from TapeCraft as to whether they will apply a local limit. I suggested 10ET limit if POW was violating toxicity but they have not been.

Design Flow - ADEM will look into 6.4 vs. reported 4.9

Different SID flows - ADEM does not use SID loading as a factor when permitting the POW, but they have asked for renewal application. I noted that Kronosgen could be discharging 180K, not 100K, per report from POW.

Phosphorus - ADAM said no WQS or downstream impacts noted; so they can't justify a limit.

Conclusions, Action Taken or Required:

Discuss w/ Maurice.

Information copies



ADEM

ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

LOCAL LIMITS

PUBLICLY OWNED TREATMENT WORKS: OXFORD WWTP

LOCATION: CALHOUN COUNTY
OXFORD, ALABAMA

PERMIT NUMBER: AL0058408

GENERAL PRETREATMENT STANDARDS AND PROHIBITIONS AND LOCAL LIMITS

No discharge to this Publicly Owned Treatment Works shall exceed or otherwise violate the General Pretreatment Standards and Prohibitions described in ADEM Admin. Rule 335-6-5-.03.

METALS: The total average daily loading of the substances listed below shall not exceed the indicated mass.

<u>Name</u>	<u>Allowable Average Daily Loading (lbs/day)</u>
ARSENIC	2.9190
CADMIUM	3.9485
CHROMIUM	437.8500
COPPER	14.5950
CYANIDE	2.9061
LEAD	2.9190
MERCURY	0.0352
NICKEL	7.2975
SILVER	1.2072
ZINC	29.1900

TEMPERATURE: The temperature of the discharge shall be such that the influent temperature at the treatment plant does not exceed 104 degrees Fahrenheit.

pH: The pH of the discharge shall not be less than 5.0 standard units or greater than 10.5 standard units.

HYDRAULIC LOADING: The total daily dry weather hydraulic loading shall not exceed 3.50 million gallons per day.

ORGANIC LOADING: The total organic loading shall not exceed 6686 pounds per day of BOD₅.

EFFECTIVE DATE: August 5, 1992



Alabama Department of Environmental Management



8

9

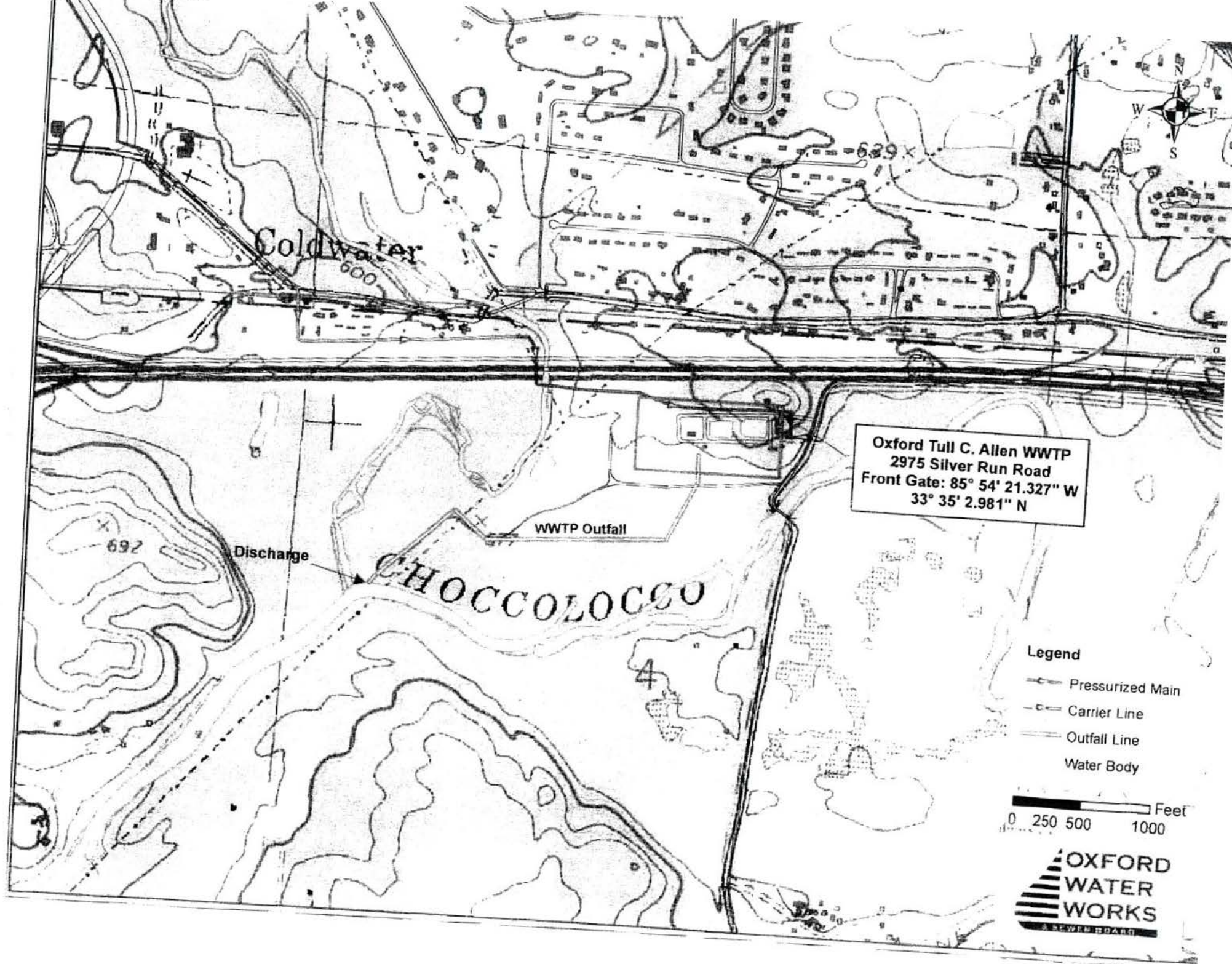
10

11

12

13

14



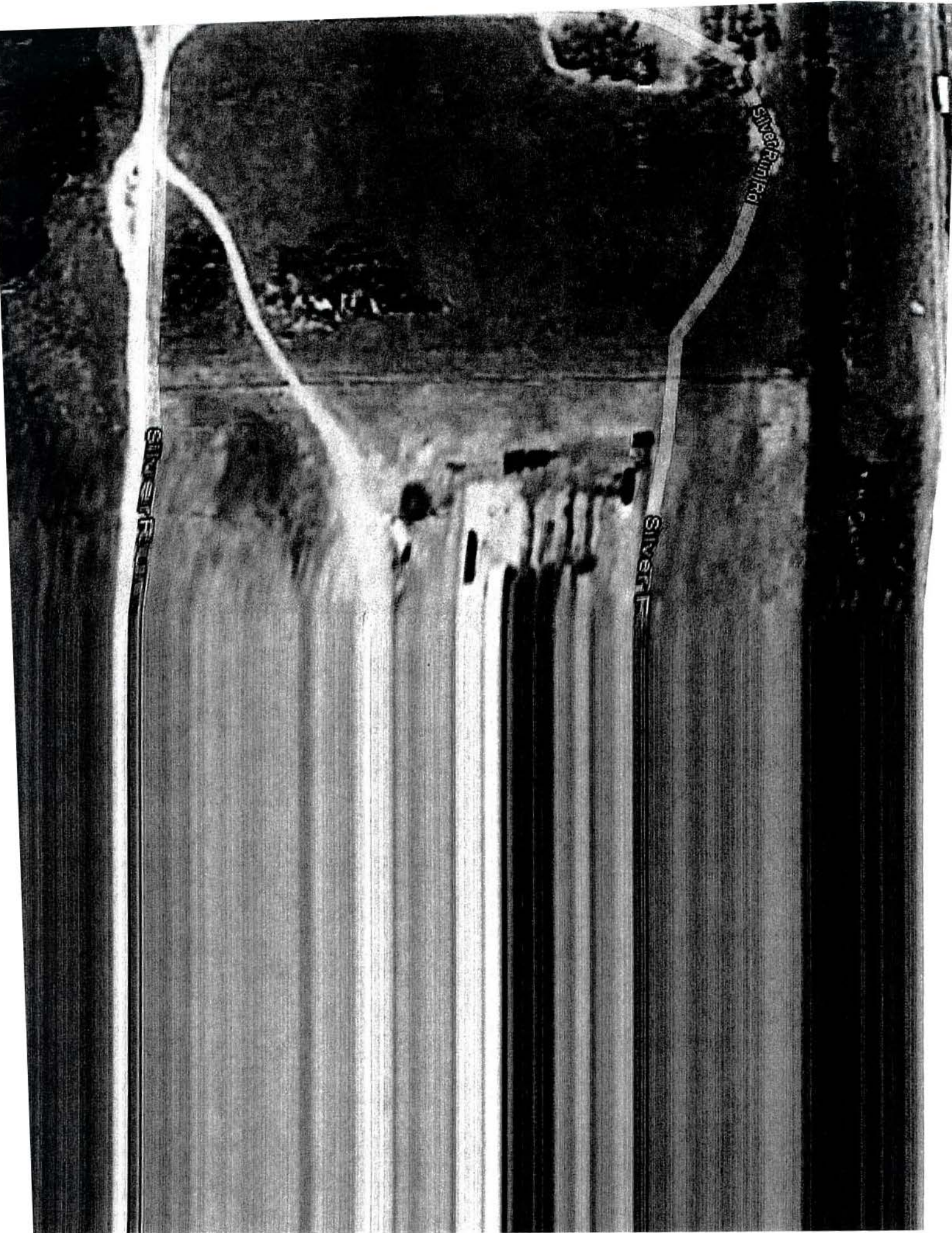
Oxford Tull C. Allen WWTP
2975 Silver Run Road
Front Gate: 85° 54' 21.327" W
33° 35' 2.981" N

- Legend
- Pressurized Main
 - Carrier Line
 - Outfall Line
 - Water Body

0 250 500 1000 Feet

OXFORD
WATER
WORKS
SEWER BOARD

1. The first part of the document is a list of the names of the members of the committee who have been appointed to the various sub-committees. The names are listed in alphabetical order of the last name.



Oxford POTW

11/14/12 11:45 am

Wayne Livingston - General Manager
Max Gaskins - Chief Operator
LaToya Hall ADEN
David Phillips EPA
Laurie Jones EPA

• Provided credentials.

• PERMIT APP: → (Includes Biolac)

Design flow: 6.4 mgd (Permit 4.9 b/c not using Biolac
for normal influent only Koon
ADF: 2.3-2.4 Avg daily flow (mgd)

• Max flow 9.2? → Flooding

Siphon box under Choc Creek, flooding
will send creek to POTW. Wayne looking
to install FM to correct. (21" pipe)
now.

• Usually after 1st of year, heavy rain.

PS and FM around creek → Wayne's plan.
(not yet in design). QINUSB build own PS.

and lay down lines. (Problem is \$ usually).

and install own system. In house engineers.

• All estimation is for normal flow. When

creek flow comes in, higher. Number

was a ballpark. No metering as of late.

- Wayne: localized flow restriction, but not system
- QWSB has done own relining w/ own equipment.
- notified of SID volume errors. (Ask Meindeth)
- Wayne thinks creel removal would fix 80-90% only one place where we surcharge, next to tractor place (exported + Hwy 21) on Hwy 21. Pipe offset needs repair, before relining w/ sack.
- Wayne believes SID reports is source of flow in permit application.
- Latoya - QWSB check SIDs? Meindeth does not. Max intends to implement. Latoya recommends spot checks.

- TP? Max: Around 3/2010 separated kronospan to Biolac. Polymer added at splitter this year. (he same type at H₂O Plant to remove TP) could be kronospan changes in discharge that caused TP decrease. Tar has gone away that caused black sticky mess.

Max: Feb 2012 - LS injections of polymer 'Cedar Chem C527' began. Hwy 20 for TP removal. Adding @ ~~100~~ ^{Hwy 20} LS to settle lines in kronospan discharge + remove formaldehyde. (LS \approx 90% km). Bench tests showed little. Added polymer + worked.



20

21

22

23

24

25

26

27

28

29

30

• Densifying process w/ 2nd polymer \rightarrow results in good removal of fines. 180,000 gpd is too much Kronospan aware of polymer they use. They talked for a full day w/ them about that; Kronospan is putting in belt press + polymer system. They hope Kron. is using same, but not sure. For Oxford, \$30,000/mo extra. Kronospan is paying ^ \$3-5k/mo over w/ cost to compare addy to end of Biolac also, Hwy 202. (Polymer 53-1.04 gal/hr @ 202-LS.

0.5 gal/hr @ end Biolac

cost/b 84¢ \rightarrow ~~114¢~~ ~~\$6.50/week~~ \rightarrow 252 gal/week

"Kronospan's temp is not high now 90-96°F."
~~Heat exchanger~~ ~~installed~~ + pH control. date in
 \rightarrow Temp @ LS has been monitored 1/week.

MH \rightarrow 600' \rightarrow [LS] this is start of POTW.

\rightarrow State gives variance for distance to headwork stable limit is 110°F for this discharge.

In Kronospan permit @ Kronospan M.P.T.

\rightarrow Temp data recorded... [loc. Hwy 202 LS - POTW]

July 2010 pH/Temp tracking studies. - 9/2011 speeds/sk

(computer crash). April 2012 \rightarrow paper. sent me

MAX provided spreadsheet for

7/2010 - 9/2011 and

log notes for 4/2012 \rightarrow Nov.

\Rightarrow exceedance from 104°F noted. (~49)

+ pH < 5.0 (#~3)



Heavy duty pumps installed

@ Hwy 202. no problems since

April 1. (will update list from 300)

Continued pump

- Problems w/ seats? Wayne not sure. (Ask Meridith)
- Belt press rental is broken. 3 Filter cans (Flo w/ bags being used now. Max - running press 10 hrs/day before broke. w/o Kronospan, they'll ruin 3 cans, no press. More difficult to turn over 3 cans @ rate recycling.

When belt press in, ran 2 weeks, 24 hrs to try and keep up, at one point.

Wayne - might do more w/ larger press.

→ Max/Meridith will get me data on solids before/after.

NH4 - values in Max's spreadsheet too.

Wayne - "NH4 take care of it for a while for."

Some drafting done.

- Wayne not certain of status of SUD; not started.
"We don't have a problem w/ understanding - Tagesscript and platy places are other."
(Check w/ Meridith)

- Wayne - did not know discharging (Kronos) until grit changer full of wood chips. around time frame of starting



→ Wayne - said he told Kronosman they'd need SID permit. New would give in for a permit w/o limits.

Numbers they gave us did not include solids/for solidification before, w/ agreement to discharge.

→ Latoya - LOA came w/ SID permit (initial application form). (She will find and provide to me.)

- Wayne - did not see any specs of facility before LO.

- Interference first notified to ADEM?

~~Early~~ March - Oct '08 Kronosman running

Separately - Wayne thinks there were some initial con. w/ ADEM before 10/2008.

- Latoya remembers 10/2008 meeting first not at meeting; first SID 2009 (draft) also.

Wayne would not agree to draft b/c of limits. absence.

→ ADEM doesn't have any DMRs Jul, Aug, Sept. from Kronosman yet. Aug. 28 due for July (1st DMR).

- No subcontract by Oxend. Wayne threatened to turn pumps off; came to "agreement" for billing. PC could cost

them \$700,000, (est. from Kronosman to Oxend) (Wayne)



→ Memo ask about limits provision in C...
that calls for LL evaluation/regent.

POTW Issues

3:10p

Wayne, Alex, Tanya, David, Kevin.

- No screening for Biolac (Kronspan),
but screening for Orbal → box (was full of chad)
when Kronspan sent there initially.

(Aerobic) (Anoxic)

- Biolac → 8 on, 16 off air valves (normal)
inflow → eff.

Orbal - air round the clock. ≈ 0.6 D.O.

it turn air off, 4 day recovery for DO needs
On days w/ more solids removal, DO ≈ 1.0 .

then → 2 Orbal aerators moved to Orbal

from waste pond to give more air, and

built catwalk w/ 2 diffusers (1) 2 diffusers (2)

- Splitter box - Biolac is not sent here now w/ Kronspan
sand leaker (Normally would.)

Orbal → return and valve box to

waste pond (180k gal/day) WAS
Rise to 0.425.



- Biolac pumped to 'waste pond' (bottom) ^(Max not sure of pump rate) for decant. If kept below overflow, it is 24/7.

Kroms not to headworks. Overflow usual - b/c of solids handling limitations. Overflow \rightarrow HD of arbal. Solids \rightarrow dry beds.

1.43 - Biolac mg. cap.

1.2 - Wastepond mg. cap

- Solids Noticed sheen on waste pond - oily.

- Drying beds (4) - in summer 1 week/bed.

Now - ~ 1 month

Max - small fibers visible,

Wilfon screen

- Floated 'Sludge Made' (3)

Sugarmade \rightarrow headworks to torbal. ^{2nd} (Kroms connecting to that side)

Clarifiers ~~12'~~ to ~~2'~~

3' Blanket (Max). (South Clarifier) measured.
Eff. 4 pm
2.5 mg

Obs. - Flow in both clarifiers lower than normal.

Obs - Effluent a Champagne brown tint.

- Aerobic cascade

Wayne "Tapercraft is color,"

Kroms put "100"

"Color is better today than usual (Max)"

monitoring -

DO, pH, T @ cascade and.

others @ parcel # Plume (check photos of Plume 12/5/55D)

obs. → Brokac - odd smell, yeast? sweet?
organic?

Discharge Point

Photos taken. No debris noted.

Max stated that there are solids settled below the water line that were noted by those taking compliance monitoring samples.

Departed

5pm



June 19, 2012

PHONE (256) 831-5618 • FAX (256) 831-9063
P.O. BOX 3663 • 600 BARRY STREET • OXFORD, AL 36203



Ms. Shanda Torbert
Alabama Department of Environmental Management
Water Division
1400 Coliseum Blvd
Montgomery, AL 36110-2059
Post Office Box 301463
Montgomery, AL 36130-1463

**RE: Preliminary Engineering Report
Proposed Consent Order
NPDES Permit No. AL0058408
Oxford Tull C. Allen WWTP
Talladega County, Alabama**

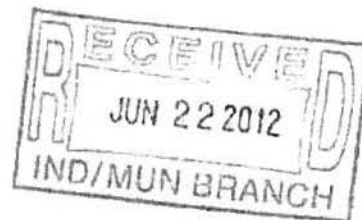
Dear Ms. Torbert:

Please find enclosed the following Preliminary Engineering Report in response to the Proposed Consent Order issued for the Oxford Tull C. Allen Wastewater Treatment Plant. If you have any questions or comments, please feel free to call me at (256) 831-5618 or email me at mholzer@oxfordwater.com to discuss this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Holzer", with a stylized flourish at the end.

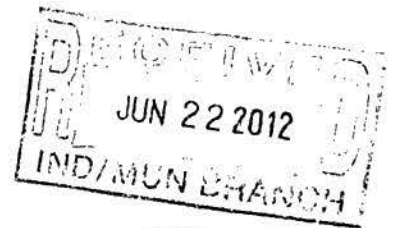
Meredith Holzer, P.E.
Oxford Water Works and Sewer Board



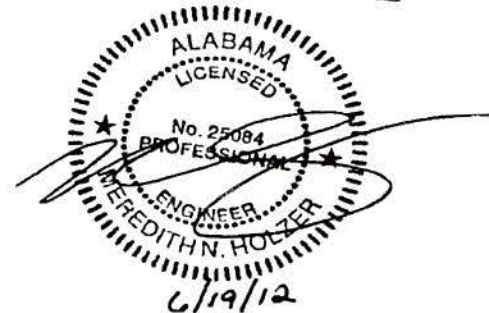
Preliminary Engineering Report

Consent Order

Tull C. Allen Wastewater Plant
Oxford Water Works and Sewer Board
Oxford, Alabama
NPDES Permit AL 0058408



June 2012



Background

Oxford Water Works & Sewer Board was issued a National Pollutant Discharge Elimination System (NPDES) Permit Number AL0058408 (See Appendix A) by the Alabama Department of Environmental Management (ADEM) on November 28, 2007, effective December 1, 2007 for its Tull C. Allen Wastewater Treatment Plant (WWTP). The permit establishes limits on the discharge from the WWTP into Choccolocco Creek, a water of the State. Oxford Water Works & Sewer Board is required to submit monthly and quarterly Discharge Monitoring Reports (DMRs) to ADEM listing the laboratory results of contaminant monitoring.

The Oxford Water Works and Sewer Board Tull C. Allen Wastewater Treatment Plant consists of a mechanical screen at the headworks. Flow is then split between the Biolac basin and the Orbal Multichannel Oxidation Ditch. The effluent from these two biological treatment systems is then combined and can be separated into two different clarifiers. From the clarifiers, the sludge is sent to the sludge pond and onto the sludge drying beds and filter cans and eventually to the landfill. The supernatant from the clarifier is then dosed with chlorine, flows through the chlorine contact chamber, is dosed with sulfur dioxide and sent down the cascade saturator and through a pipe to be discharged into Choccolocco Creek.

On March 21, 2012, Oxford Water Works and Sewer Board received a Consent Order (12-093-CWP) violating discharge limits in regard to the Alabama Water Pollution Control Act (see Appendix B). Also ADEM has received comments and letters from the Coosa Riverkeeper, Inc. in regards to the Administrative Consent Order and has responded to those comments accordingly (see Appendix B).

Violations

Upon multiple site visits, ADEM noted the dark color of the WWTP's effluent. The color of the effluent was visible several hundred feet downstream of the discharge in Choccolocco Creek. A very thick layer of settleable solids was noted on the bottom of the creek. A manhole following the cascading saturator was overflowing with foam during one of the inspections. Black sludge was visible on the ground and on a chain link fence approximately two feet high close to the manhole.

During the year 2009, Oxford Water Works and Sewer Board began to submit the monthly DMRs through the online e-DMR service (via ADEM's website). During this time, quarterly sampling for cadmium and lead was completed, but not submitted to the e-DMR website as an oversight. Once this was brought to the attention of the Board, all of the missing DMRs were submitted and kept up to date.

Effluent violations during the 8/31/2009 through 11/30/2010 monitoring period were almost all nitrogen, ammonia total (as N) during the summer limits. The permit limits and sample results for all effluent violations are listed in Table 1 below. Other violations included total residual chlorine and fecal coliform. Both of those were tested by ADEM during a site visit on September 2, 2010.

For these violations, ADEM calculated a penalty of \$20,450.00 which has already been paid by the Oxford Water Works and Sewer Board. The breakdown of the penalty calculations can be seen in Attachment 2 of the Consent Order (see Appendix B).

Monitoring Period	Parameter	Permit Limits	Sample Result
3/31/09	Cadmium & Lead	Failed to Report*	
6/30/09	Cadmium & Lead	Failed to Report*	
8/31/09	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	20.2 mg/L
8/31/09	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	484.8 lbs/day
8/31/09	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	10.9 mg/L
8/31/09	Nitrogen, ammonia total, as N	40.8 lbs/day Monthly Avg	220.1 lbs/day
9/30/09	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	18.5 mg/L
9/30/09	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	441.0 lbs/day
9/30/09	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	15.7 mg/L
9/30/09	Nitrogen, ammonia total, as N	40.8 lbs/day Monthly Avg	335.8 lbs/day
9/30/09	Cadmium & Lead	Failed to Report*	
10/31/09	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	16 mg/L
10/31/09	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	338.9 lbs/day

10/31/09	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	8.5 mg/L
10/31/09	Nitrogen, ammonia total, as N	40.8 lbs/day Monthly Avg	273.6 lbs/day
11/30/09	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	9.6 mg/L
11/30/09	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	389.4 lbs/day
11/30/09	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	8.8 mg/L
11/30/09	Nitrogen, ammonia total, as N	40.8 lbs/day Monthly Avg	263.0 lbs/day
12/31/09	Cadmium & Lead	Failed to Report*	
5/31/10	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	8.6 mg/L
5/31/10	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	199 lbs/day
5/31/10	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	5.0 mg/L
5/31/10	Nitrogen, ammonia total, as N	40.8 lbs/day Monthly Avg	126 lbs/day
6/30/10	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	7.9 mg/L
6/30/10	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	167 lbs/day
6/30/10	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	6.6 mg/L
6/30/10	Nitrogen, ammonia total, as N	40.8 lbs/day Monthly Avg	139 lbs/day
7/31/10	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	14.3 mg/L
7/31/10	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	294 lbs/day
7/31/10	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	8.7 mg/L
7/31/10	Nitrogen, ammonia total, as N	40.8 lbs/day Monthly Avg	180 lbs/day
8/31/10	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	7.4 mg/L
8/31/10	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	282 lbs/day
8/31/10	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	8.3 mg/L
8/31/10	Nitrogen, ammonia total, as N	40.8 lbs/day Monthly Avg	155 lbs/day
9/2/10	Chlorine, Total Residual (Daily Maximum)	0.08 mg/L**	0.27 mg/L
9/2/10	Coliform, Fecal General (Daily Maximum)	2000 col/100 mL**	2200 col/100 mL
9/30/10	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	6.1 mg/L
9/30/10	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	104 lbs/day
9/30/10	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	1.4 mg/L
10/31/10	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	1.8 mg/L
11/30/10	Nitrogen, ammonia total, as N	1.5 mg/L Weekly Avg	3.9 mg/L
11/30/10	Nitrogen, ammonia total, as N	61.2 lbs/day Weekly Avg	63 lbs/day
11/30/10	Nitrogen, ammonia total, as N	1.0 mg/L Monthly Avg	1.7 mg/L

*Data submitted on 9/15/2010 – See Item 7 in Consent Order Stipulations

**Data was taken by the Department's Field Office on September 2, 2010 during a site inspection.

Potential Causes of Noncompliance

Oxford Water Works and Sewer Board agreed to accept discharge from a new industry and installed sanitary sewer mains to their facility in 2006. This industry, Kronoflooring (Kronospan), began discharging to the Oxford WWTP in February 2008. Once the industry started ramping up production, their sewer flows increased and a definite change in the makeup of the sewage became evident at the WWTP. Ammonia levels had been increasing and dissolved oxygen became difficult to keep at normal levels. A foaming problem began at the cascade and would overflow the manhole at the bottom of the cascade when flows got higher. A black tar like substance, believed to be resin, was visible in the discharge and was difficult to remove. Also, it became evident that wood chips and wood fiber were entering the plant and on many occasions fouling the pumps and mechanical screens at the headworks of the plant. Also the temperature of the discharge was extremely high and started causing damage to the pumps in the lift station close to Kronospan's facility. The first calls and meetings to Kronospan to identify the problems began in May 2008. In the fall of 2008, OWWSB met with Kronospan and ADEM officials concerning the draft SID permit for Kronospan and the problems that Oxford had identified, specifically high levels of formaldehyde in the effluent.

Oxford began its own investigation and hired consulting firms, spoke with professors, technical salesmen, etc. It was discovered that the formaldehyde was "encapsulating" the nitrifying bacteria and making it dormant, therefore not allowing any bacteriological processes to occur in the plant. Also, the total suspended solids (TSS) values were so high and the solids would not drop out of solution with polymer and alum addition. The oxygen levels were so low, even with all of the blowers and diffusers running constantly. Different chemicals and processes were used to try to help this problem. Laboratory samples were being collected and analyzed weekly at different points in the sewer system and throughout the treatment process at the WWTP. OWWSB decided to remove the biolac basin from the treatment process in order to separate the waste streams (Kronospan and other residential/business). The Biolac basin bottom was filled with concrete to give an easy cleaning surface and the diffusers were replaced. The ammonia levels have improved but were not below the summer limits. OWWSB received a draft Consent Order based on the ammonia exceedences, issues during inspections, and reporting violations.

In the fall of 2010, Oxford requested a meeting with ADEM concerning the draft Consent Order and the draft SID permit for Kronospan that had still not been issued. Oxford requested a limit for formaldehyde, ammonia, temperature, TSS, pH be instituted on the SID permit. Also, Oxford presented a compilation of the work that had been completed to that point to remedy the issues at the WWTP, which Oxford believes comes mostly from Kronospan's discharge. This list totaled over \$230,000 in October 2010 and is now up to \$315,681.82 as of May 2012. This list is located in Appendix C. In November 2011, a draft SID permit was submitted for review and included the parameters as requested by Oxford. This draft SID permit is still in process and can be added to the report as needed.

During two site inspections, foam was visible at the cascade, along with black tar on the fence surrounding the plant. Also, the effluent from the WWTP was dark brown in color was visible in Choccolocco Creek. Effluent violations were also noted during the inspection.

The Consent Order for the above violations was issued on March 21, 2012. The current plan will be detailed in the Proposed Plan section of this report and the proposed timeframe will be detailed in the Schedule of Implementation section.

Proposed Plan

Oxford has attempted the following measures in order to reduce the suspended solids, formaldehyde, and ammonia levels in the wastewater discharge. During these studies, laboratory samples were taken weekly and sometimes daily to accurately monitor changes.

- Drain and concrete the Biolac basin
- Install new air lines in the Biolac basin
- Byo-Gon pilot study – 3 month study of an injection of "Byo-Gon" into the pump station between Kronospan and the WWTP.
- Conducted numerous studies using a variety of polymers and chemicals to optimize Kronospan's effluent.

The most current plan includes the following steps. Some of these have been completed and some are in process.

How
related to
SID/interference?
SS&S? See below
why?

- Constructed retaining walls around the cascade in order to contain effluent during heavy rains and washouts. Effluent will be held in retaining walls until the flow subsides in the creek. A retaining pond to hold additional effluent in case of heavy rains and flooding will be constructed later this summer.
- Kronospan's effluent is currently being discharged into the Biolac basin separately. It is mixed with polymer and PAC prior to release into the Biolac basin. The basin is aerated and then it is pumped into the sludge pond. Kronospan sludge is combined with normal municipal sludge from the orbal and clarifier process in a 1:2 ratio. Sludge is then run through a belt press, with the liquid being sent back to the headworks of the plant and the dry sludge being sent to the landfill. The WWTP is also still using the filter cans as well for some of the sludge removal.
- A new blower has been purchased and a catwalk on top of the Orbal basin is being installed. Air diffusers are being placed along the catwalk. This is needed to increase the dissolved oxygen values in the different channels of the basin. Dissolved oxygen will be monitored in each channel and will automatically turn the blowers on and off depending on the levels of oxygen.
- Oxford Water will continue the on-going rehabilitation of sewer system, specifically removing the siphon boxes on either side of Choccolocco Creek where a great deal of inflow is presumed to be. Also other areas of the sewer will be monitored for flow to see if there are other areas of major inflow. The ongoing sewer rehabilitation program also includes rehabbing old lines and manholes, as well as maintaining existing lift stations throughout the system.

Reasons for
low DO - ?
this basin
has no
Kronospan,
correct?

Is this
cylinder
check a
method
Why?
Is this in
C.O.D.

Kronospan is also currently working on a plan to build a primary treatment system on their site to be able to deliver a wastewater that meets their proposed limits in the draft SID permit. This project should be completed by August 2013.

Schedule of Implementation

The Consent Order states that all changes must be implemented by March 20, 2014. Oxford WWSB began working on the current plan in March 2012. The schedule of implementation is shown below.

March 2012: Continued with polymer/PAC testing of Kronospan effluent to settle out suspended solids in the Biolac.

April 2012: Rented belt press to begin wasting Kronospan and Oxford WWTP's sludge from sludge pond.

May 2012: Summer ammonia limits begin. Continue belt press and separation of Kronospan's effluent. Begin construction on Orbal basin diffusers.

June 2012: Complete construction on Orbal basin diffusers. Kronospan begins work on their preliminary treatment process at their plant.

July 2012: Continue to collect laboratory samples and analyze for fluctuations in ammonia levels, formaldehyde, TSS, fecal coliform, dissolved oxygen, pH and temperature.

August 2012: Begin construction on the secondary containment pond adjacent to the cascade saturator.

September 2012: Begin removing siphon boxes on either side of Choccolocco Creek and re-route sewer. Also continue to work on rehabilitation of other areas in the sewer system.

August 2013: Kronospan should be completed with their preliminary treatment system.

What do Orbal diffusers, siphon, etc. done by Oxford achieve in relation to Kronospan problem? Are they for other issues? How do they reduce formaldehyde?



100

100

100

100

100

100

100

100

100

100

100

100

100

100

APPENDIX C

Money Spent on Ammonia/Formaldehyde/Kronospan Issues

Upgrade to WWTP (Concrete Biolac basin)	2009	\$ 144,232.38
New air lines for Biolac basin	Oct-09	\$ 10,605.99
Portable Spectrometer with Accessories	Feb-09	\$ 4,001.28
Rebuilt Controller Assembly & Suction Line	Aug-10	\$ 1,127.48
Flygt Pumps (PS for Surge Basin)	Sep-09	\$ 13,351.00
Parts to Rebuild #5 Aerator at WWTP	Jul-10	\$ 2,522.85
Polymer Pumps	Mar-10	\$ 2,825.00
Rotating Brush Assembly	May-10	\$ 1,302.00
Impellers (2)	Aug-08	\$ 5,780.00
Repair Air Release Valves (Sludge Return Pumps)	Nov-09	\$ 1,382.00
Replace Bearings for Aerator #2	May-09	\$ 1,186.60
Rebuild grit pump at WWTP	May-09	\$ 5,151.24
Laboratory Samples (Kronospan)	2008-2010	\$ 10,817.50
Laboratory Samples (WWTP)	2008-2010	\$ 5,227.50
Byo-Gon	Oct-09	\$ 2,947.08
Byo-Gon	Nov-09	\$ 10,328.05
Byo-Gon	Mar-10	\$ 10,819.86
		<u>\$ 233,607.81</u>

ADEM Meeting October 2011

Pump Seal replacement	Jun-10	\$ 2,071.96
Impeller replacement	Jun-10	\$ 1,185.51
Parkson Corp - Element	Apr-11	\$ 1,635.70
Retaining walls around cascade	Jul-11	\$ 11,130.00
Rebuilt assembly	Aug-10	\$ 1,127.48
replaced battery cable	Aug-10	\$ 852.15
Revere controls	Oct-10	\$ 5,404.68
Rebuild Cl2 and SO2 systems	Apr-11	\$ 3,695.08
lawson products	Jul-11	\$ 1,037.84
sprinkler for sludge pond	May-10	\$ 1,150.00
upgrade cascade	Jul-11	\$ 6,841.79
rebuild pump #2	Jun-11	\$ 3,619.40
rebuild pump	Jun-10	\$ 1,185.00
lab fees	2010-2011	\$ 12,138.50
Sludge disposal (kronospan)	Apr-12	\$ 12,225.00
Sludge disposal (kronospan)	May-12	\$ 16,773.92
Polymer pilot study	2012	\$ 29,428.70
		<u>\$ 82,074.01</u>

TOTAL SPENT \$ 315,681.82

C.V. - ADEM - penalty \$ 20,450



PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS**A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS****1. Outfall 0011 Discharge Limits**

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Oxygen, Dissolved (DO) 00300 1 0.0	*****	*****	*****	*****	6.0 mg/l	*****	*****	E	GRAB	C	*****
pH 00400 1 0.0	*****	*****	*****	*****	6.0 S.U.	9.0 S.U.	*****	E	GRAB	C	*****
Solids, Total Suspended 00510 1 0.0	1225 lbs/day	1838 lbs/day	30.0 mg/l	45.0 mg/l	*****	*****	*****	E	COMP24	C	*****
Solids, Total Suspended 00510 G 0.0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	COMP24	C	*****
Nitrogen, Ammonia Total (As N) 00610 1 0.0	40.8 lbs/day	61.2 lbs/day	1.0 mg/l	1.5 mg/l	*****	*****	*****	E	COMP24	C	S
Nitrogen, Ammonia Total (As N) 00610 1 0.0	817 lbs/day	1225 lbs/day	20.0 mg/l	30.0 mg/l	*****	*****	*****	E	COMP24	C	W
Nitrogen, Kjeldahl Total (As N) 00625 1 0.0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Nitrite Plus Nitrate Total I Det (As N) 00630 1 0.0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Phosphorus, Total (As P) 00665 1 0.0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	COMP24	G	*****
Color (ADMI Units) 01290 > 0.0	*****	*****	*****	*****	*****	80 ADMI	*****	RS	GRAB	C	*****

See Part II.C.1. (Bypass), Part II.C.2. (Upset)
Monitoring Requirements

Sample Location
Influent
Effluent
End Chlorine Contact Chamber
Percent Removal of the Monthly Avg. Influent Concentration
from the Monthly Avg. Effluent Concentration.
Receiving Stream

(2) Sample Type
CONTIN - Continuous
INSTAN - Instantaneous
COMP-8 - 8-Hour Composite
COMP24 - 24-Hour Composite
GRAB - Grab
CALCTD - Calculated

(3) Measurement Frequency. See also Part I.B.2
A - 7 days per week
B - 5 days per week
C - 3 days per week
D - 2 days per week
E - 1 day per week
F - 2 days per month
G - 1 day per month
H - 1 day per quarter
J - Annual
Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits
S = Summer (May - November)
W = Winter (December - April)
ECS = E_col Summer (June - September)
ECW = E_col Winter (October - May)

2. Outfall 0011 Discharge Limits (continued)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Flow, In Conduit or Thru Treatment Plant 50050 0 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	E	CONTIN	A	*****
Chlorine, Total Residual See note (5) 50060 0 0 0	*****	*****	0.08 mg/l	*****	*****	0.13 mg/l	*****	E	GRAB	C	*****
E. Coli 51040 0 0 0	*****	*****	126 col/100mL	*****	*****	487 col/100mL	*****	E	GRAB	C	ECS
E. Coli 51040 0 0 0	*****	*****	548 col/100mL	*****	*****	3507 col/100mL	*****	E	GRAB	C	ECW
BOD, Carbonaceous 05 Day, 20C 80082 0 0 0	326 lbs/day	490 lbs/day	8.0 mg/l	12.0 mg/l	*****	*****	*****	E	COMP24	C	S
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	1021 lbs/day	1532 lbs/day	25.0 mg/l	37.5 mg/l	*****	*****	*****	E	COMP24	C	W
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	J	COMP24	C	*****
BOD, Carb-5 Day, 20 Deg C, Percent Remvl 80091 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****
Solids, Suspended Percent Removal 81011 K 0 0	*****	*****	*****	*****	*****	*****	85.0%	K	CALCTD	G	*****

* See Part II C.1. (Bypass), Part II C.2 (Upset)

** Monitoring Requirements

(1) Sample Location

I - Influent

E - Effluent

X - End Chlorine Contact Chamber

K - Percent Removal of the Monthly Avg. Influent Concentration

from the Monthly Avg. Effluent Concentration.

RS - Receiving Stream

(2) Sample Type:

CONTIN - Continuous

INSTAN - Instantaneous

COMP-8 - 8-Hour Composite

COMP24 - 24-Hour Composite

GRAB - Grab

CALCTD - Calculated

(3) Measurement Frequency: See also Part I B 2.

A - 7 days per week F - 2 days per month

B - 5 days per week G - 1 day per month

C - 3 days per week H - 1 day per quarter

D - 2 days per week J - Annual

E - 1 day per week Q - For Effluent Toxicity

Testing, see Provision IV.B.

(4) Seasonal Limits:

S = Summer (May - November)

W = Winter (December - April)

ECS = E. coli Summer (June - September)

ECW = E. coli Winter (October - May)

(5) See Part IV C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "NODI=9" on the monthly DMR.

3. Outfall 001S Discharge Limits - Stormwater runoff

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 001S, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Oxygen, Dissolved (DO) 00300 1.00	*****	*****	*****	*****	REPORT mg/l	*****	*****	E	GRAB	J	*****
pH 00400 1.00	*****	*****	*****	*****	REPORT SU	REPORT SU	*****	E	GRAB	J	*****
Solids, Total Suspended 00530 1.00	*****	*****	*****	*****	*****	REPORT mg/l	*****	E	GRAB	J	*****
Oil & Grease 00556 1.00	*****	*****	*****	*****	*****	15 mg/l	*****	E	GRAB	J	*****
Nitrogen, Ammonia Total (As N) 00610 1.00	*****	*****	*****	*****	*****	REPORT mg/l	*****	E	GRAB	J	*****
Nitrogen, Kjeldahl Total (As N) 00625 1.00	*****	*****	*****	*****	*****	REPORT mg/l	*****	E	GRAB	J	*****
Nitrate Plus Nitrate Total (As N) 00630 1.00	*****	*****	*****	*****	*****	REPORT mg/l	*****	E	GRAB	J	*****
Phosphorus, Total (As P) 00665 1.00	*****	*****	*****	*****	*****	REPORT mg/l	*****	E	GRAB	J	*****
Flow, In Conduit or Thru Treatment Plant 50050 1.00	*****	*****	*****	*****	*****	REPORT MGD	*****	E	GRAB	J	*****
Chlorine, Total Residual See note (5) 50060 1.00	*****	*****	*****	*****	*****	REPORT mg/l	*****	E	GRAB	J	*****

See Part II C.1. (Bypass); Part II C.2. (Upset)

Monitoring Requirements

Sample Location

Influent

Effluent

End Chlorine Contact Chamber

Percent Removal of the Monthly Avg. Influent Concentration

from the Monthly Avg. Effluent Concentration

Receiving Stream

(2) Sample Type:

CONTIN - Continuous

INSTAN - Instantaneous

COMP-8 - 8-Hour Composite

COMP24 - 24-Hour Composite

GRAB - Grab

CALCTD - Calculated

(3) Measurement Frequency. See also Part I.B.2.

A - 7 days per week

B - 5 days per week

C - 3 days per week

D - 2 days per week

E - 1 day per week

F - 2 days per month

G - 1 day per month

H - 1 day per quarter

J - Annual

Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:

S = Summer (May - November)

W = Winter (December - April)

ECS = *E. coli* Summer (June - September)

ECW = *E. coli* Winter (October - May)

See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "NODI=9" on the monthly DMR.

4. Outfall 001S Discharge Limits - Stormwater runoff (continued)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 001S, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
E. Coli 51040 1 0 0	*****	*****	*****	*****	*****	REPORT CFU/100mL	*****	E	GRAB	J	*****
BOD, Carbonaceous 05 Day, 20C 80082 1 0 0	*****	*****	*****	*****	*****	REPORT mg/l	*****	E	GRAB	J	*****

* See Part II C.1. (Bypass); Part II C.2. (Upset)

** Monitoring Requirements

(1) Sample Location

I - Influent

E - Effluent

X - End Chlorine Contact Chamber

K - Percent Removal of the Monthly Avg. Influent Concentration

from the Monthly Avg. Effluent Concentration

RS - Receiving Stream

(2) Sample Type:

CONTIN - Continuous

INSTAN - Instantaneous

COMP-8 - 8-Hour Composite

COMP24 - 24-Hour Composite

GRAB - Grab

CALCTD - Calculated

(3) Measurement Frequency: See also Part I B.2.

A - 7 days per week

B - 5 days per week

C - 3 days per week

D - 2 days per week

E - 1 day per week

F - 2 days per month

G - 1 day per month

H - 1 day per quarter

J - Annual

Q - For Effluent Toxicity

Testing, see Provision IV.B.

(4) Seasonal Limits:

S = Summer (May - November)

W = Winter (December - April)

ECS = E. coli Summer (June - September)

ECW = E. coli Winter (October - May)

5. Outfall 001T Discharge Limits

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 001T, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*							Monitoring Requirements**			
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Toxicity, Ceriodaphnia Chronic 61426.1 0.0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	W
Toxicity, Pimephales Chronic 61428.1 0.0	*****	Pass = 0 Fail = 1	*****	*****	*****	*****	*****	E	COMP24	Q	W

See Part II.C.1. (Bypass); Part II.C.2. (Upset)

Monitoring Requirements

Sample Location

Influent

Effluent

End Chlorine Contact Chamber

Percent Removal of the Monthly Avg. Influent Concentration

from the Monthly Avg. Effluent Concentration.

- Receiving Stream

(2) Sample Type:

CONTIN - Continuous

INSTAN - Instantaneous

COMP-8 - 8-Hour Composite

COMP24 - 24-Hour Composite

GRAB - Grab

CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2

A - 7 days per week

B - 5 days per week

C - 3 days per week

D - 2 days per week

E - 1 day per week

F - 2 days per month

G - 1 day per month

H - 1 day per quarter

J - Annual

Q - For Effluent Toxicity

Testing, see Provision IV.B.

(4) Seasonal Limits

S = Summer (May - November)

W = Winter (December - April)

ECS = E. coli Summer (June - September)

ECW = E. coli Winter (October - May)



PHONE (256) 831-5618 • FAX (256) 831-9063
P.O. BOX 3663 • 600 BARRY STREET • OXFORD, AL 36203



August 14, 2012

Mr. David Phillips
U.S. Environmental Protection Agency, Region 4
Clean Water Enforcement Branch
61 Forsyth Street, S.W.
Atlanta, GA 3030-8960

2012 AUG 17 P 4:06

RE: Information Request – Section 308 of the Clean Water Act
Oxford Tull C. Allen Wastewater Treatment Plant
National Pollutant Discharge Elimination System Permit No. AL0058408

Dear Mr. Phillips:

In response to the Information Request received on July 20, 2012, the Oxford Water Works and Sewer Board provides the following information.

1. The timeline of the interference which the facility has experienced due to non-domestic discharges in the last five years is attached.
2. Oxford Water Works & Sewer Board does not have a local Sewer Use Ordinance. We are currently in the process of developing one for our current and future industries.
3. Schematic of the facility is attached. The facility is currently operating under these conditions, while attempting to remedy the limit exceedences of the effluent. The design flow of the plant is 6.4 MGD. The average daily flow for the last five years is as follows:
 - 2011 – 2.86 MGD
 - 2010 – 2.71 MGD
 - 2009 – 3.64 MGD
 - 2008 – 2.92 MGD
 - 2007 – 1.97 MGD
4. Summaries of the Oxford's WWTP pollutant scans are included on the compact disc. These include the monthly Discharge Monitoring Reports for the last five years, plus toxicity testing, and specific Kronospan testing. These analyses are performed by TTL, Inc., a certified laboratory, which performs all of Oxford's testing. During this time, Oxford Water Works and Sewer Board also performed in-house monitoring (2-3 times a week) of Kronospan's discharge, the plant influent, effluent and multiple spot locations throughout the treatment process. The results of these tests were used for operational purposes only.



5. Data included on the compact disc also includes testing from various locations in the sewer system, specifically the first manhole outside of Kronospan's fence, the Hwy 202 lift station (closest to Kronospan), and the I-20 lift station (receives wastewater from Hwy 202 lift station and routes it directly to the wastewater plant). These analyses were also performed by TTL, Inc.
6. Oxford WWSB has not identified the maximum allowable headworks loading pursuant to the Local Limits Development Guidance. However, Oxford has found that when Kronospan is not running, the effluent meets effluent limits within a few days of Kronospan's shutdown. Oxford WWSB is currently working on developing Local Limits for industries but does not have one in place at this time.
7. A list of all non-domestic users is attached.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in cursive script, appearing to read "Wayne Livingston".

Wayne Livingston, General Manager
Oxford Water Works and Sewer Board

50

100

150

200

250

300

350

400

450

TIMELINE OF KRONOSPAN INTERFERENCE

March 1, 2008 – First day of Kronospan production. Oxford WWSB personnel began noticing a problem in April 2008 with the effluent values and discharge received from Kronospan. Kronospan's discharge had a high temperature (excess of 130°F), low pH values, very high solids, excessive wood chips, high formaldehyde, and high BOD values.

May 2008 – Oxford WWSB noticed an increase in ammonia effluent values right at the summer permit limit of 1 mg/l. Oxford spoke with many specialists and operators who think that the formaldehyde is encapsulating the ammonia and not allowing biological treatment to occur. Also, once the solids drop out of solution, the majority of the formaldehyde is removed as well.

June 19, 2008 – Oxford WWSB asked Kronospan to use TTL, Inc. testing laboratory to test for formaldehyde. During this time, Oxford WWSB began testing the discharge at Kronospan's first manhole and at the Hwy 202 lift station.

September 2008 – Oxford WWSB had another month of ammonia effluent values at summer permit limit of 1 mg/l.

October 22, 2008 – Oxford WWSB requested a meeting with ADEM (meeting occurred on November 4, 2008) to get help from them in regards to Kronospan's discharge, which at the time were discharging with no SID permit. Oxford wanted guidance in treatment of formaldehyde, which is believed to cause problems with ammonia removal.

January 2009 – Oxford WWSB's effluent ammonia values were much higher than normal, even though they were still within the winter limits.

August 2009 – Oxford exceeded the summer limits for ammonia from August through November 2009.

August 3, 2009 – Began Bio-Gone pilot study to try to remove TSS and BOD from Kronospan's discharge with hopes to lower ammonia levels in WWTP effluent. This pilot study continued on and off until July 2010. Unfortunately, the results from this study did not produce a solution to treating Kronospan's wastewater stream.

September 10, 2009 – Bio-Gone pilot study was stopped due to very low pH values (pH=4) in Kronospan's discharge, rendering any biological activity impossible.

November 19, 2009 – Oxford WWSB replaced seal cartridge on Pump #2 in Hwy 202 lift station due to high solids and excessive temperatures from Kronospan's discharge.

February 2010 – Began grab sample testing of daily ammonia levels at Kronospan's manhole, I-20 lift station, WWTP influent, and WWTP effluent. Began weekly testing of formaldehyde at Kronospan's manhole. Requested Kronospan to investigate process to determine where source of formaldehyde was coming from.

April 3, 2010 – Replaced impeller on Pump #2 at Hwy 202 lift station due to high solids and excessive temperatures from Kronospan's discharge.



100

50

10

20

30

40

50

60

May 2010 – Oxford exceeded the summer limits for ammonia from May through November 2010.

June 3, 2010 – Replaced seal cartridge for Pump #1 at Hwy 202 lift station due to high solids and excessive temperatures from Kronospan's discharge.

June 17, 2010 – Replaced seal cartridge for Pump #2 at Hwy 202 lift station at Hwy 202 lift station due to high solids and excessive temperatures from Kronospan's discharge.

August 25, 2010 – Oxford WWSB received draft Consent Order.

September 14, 2010 – Oxford WWSB requested meeting with ADEM concerning Consent Order and Kronospan SID permit. Oxford WWSB provided ADEM with proposed plan and money spent to date trying to remedy the Kronospan discharge issues. Oxford asked again for limits for formaldehyde to be given to Kronospan, as well as specific limits for pH, temperature, TSS, BOD, and ammonia.

May 18, 2011 – Oxford WWSB received the revised draft Consent Order.

May 19, 2011 – Replaced seal cartridge for Pump #2 at Hwy 202 lift station due to high solids and excessive temperatures from Kronospan's discharge.

June 1, 2011 – Replaced seal cartridge for Pump #2 at Hwy 202 lift station due to high solids and excessive temperatures from Kronospan's discharge.

August 22, 2011 – Replaced seal cartridge for Pump #1 at Hwy 202 lift station due to high solids and excessive temperatures from Kronospan's discharge.

September 12, 2011 – Replaced Pump #2 at Hwy 202 lift station to heavy duty, high temperature pump.

October 2011 – Met with ADEM to discuss Consent Order.

November 23, 2011 – Replaced seal cartridge for Pump #1 at Hwy 202 lift station due to high solids and excessive temperatures from Kronospan's discharge.

January 2012 – Began testing different polymers to determine best option for removal of solids from Kronospan's discharge. Separated wastewater streams by putting Kronospan's discharge directly into the Biolac basin, while other flow goes through Orbal basins. Determined optimum polymer and dosage amount and began using continually in March 2012.

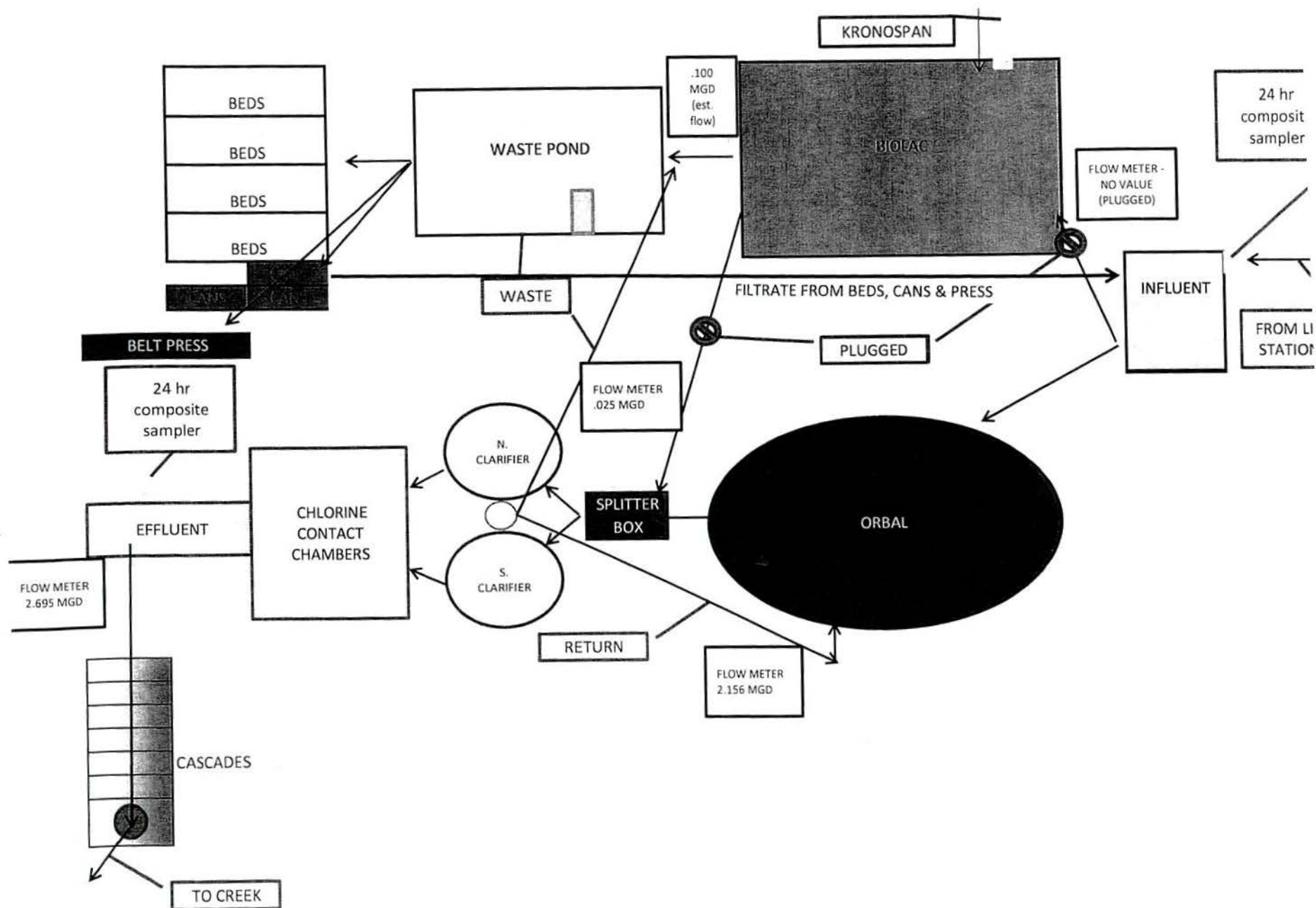
March 21, 2012 – Oxford WWSB receives consent order for ammonia exceedences. Oxford paid \$20,450 fine on March 28, 2012 as specified in Consent Order.

April 5, 2012 – Oxford submits acceptance letter of Kronospan's SID permit with limits on items requested in 2010.

April 2012 – Rented belt press to help with removal of Kronospan's sludge. Plan to rent belt press until Kronospan has permanent pre-treatment system in place.

June 29, 2012 – Final SID Permit is issued by ADEM for Kronospan.







**ALL NON-DOMESTIC USERS
(WITH SID PERMIT)**

1. **Southern Tool** (discharge to sewer system)
PO Box 2248, Anniston, AL 36202
Investment castings and metal finishing operations
1,157 gpd
2. **Southern Metal** (discharge to sewer system)
PO Box 3327, Oxford, AL 35203
Cleans filters and related parts and equipment for the manmade fiber industry
13,000 gpd
3. **Tapecraft Corporation** (discharge to sewer system)
PO Box 2027, Anniston, AL 36202
Textile finishing and dyeing operations
89,400 gpd
4. **Honeywell Aerospace Services** (discharge to sewer system)
1 Cliff Garrett Drive, Anniston, AL 36202
Aircraft parts cleaning and repair
60,000 gpd
5. **Kronospan LLC** (discharge to sewer system)
9320 Highway 202, Eastaboga, AL 36260
Manufacture of medium density fiberboard
100,000 gpd

1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUL 18 2012

CERTIFIED MAIL 7010 1060 0002 1705 7441

RETURN RECEIPT REQUESTED

Oxford Water Works and Sewer Board
c/o Mr. Wayne Livingston
General Manager
Post Office Box 3663
Oxford, Alabama 36203

Re: Information Request – Section 308 of the Clean Water Act
Oxford Tull C. Allen Wastewater Treatment Plant
National Pollutant Discharge Elimination System Permit No. AL0058408

Dear Mr. Livingston:

Pursuant to Section 308 of the Clean Water Act (CWA), 33 U.S.C. § 1318, the U.S. Environmental Protection Agency, Region 4 hereby requests Oxford Water Works and Sewer Board (Oxford) to provide the information set forth in Enclosure A regarding the Oxford Tull C. Allen Wastewater Treatment Plant noted above. Oxford is required to respond to this information request within 30 days of receipt of this letter. The response should be directed to:

Mr. David Phillips
U.S. Environmental Protection Agency, Region 4
Clean Water Enforcement Branch
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960

Oxford's response to this information request should specifically reference the particular section and number of the request and should be organized for the purpose of clarity. In addition, all information submitted must be accompanied by the following certification signed by a responsible official of Oxford in accordance with 40 Code of Federal Regulations (C.F.R.) § 122.22:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Failure to comply with this information request may result in enforcement proceedings under Section 309 of the CWA, 33 U.S.C. § 1319, which could result in the judicial imposition of civil or criminal penalties or the administrative imposition of civil penalties. In addition, there is potential criminal liability for the falsification of any response to the requested information.

Oxford shall preserve until further notice, all records (either written or electronic) which exist at the time of receipt of this letter that relate to any of the matters set forth in this letter. The term "records" shall be interpreted in the broadest sense to include information of every sort. The response to this information request shall include assurance that these record protection provisions were put in place, as required. No such records shall be disposed of until written authorization is received from the Chief of the Clean Water Enforcement Branch at the U.S. EPA, Region 4.

If you believe that any of the requested information constitutes confidential business information, you may assert a confidentiality claim with respect to such information except for effluent data. Further details, including how to make a business confidentiality claim, are found in Enclosure B.

Also enclosed is a document entitled *U.S. EPA Small Business Resources-Information Sheet* which may assist you in understanding the compliance assistance resources and tools available. However, any decision to seek compliance assistance at this time does not relieve Oxford of its obligations to the EPA or the State of Alabama, does not create any new rights or defenses, and will not affect the EPA's decision to pursue enforcement action.

If you have questions regarding this notice and information request, please feel free to contact Mr. David Phillips at (404) 562-9773.

Sincerely,

A handwritten signature in black ink, appearing to read "Denisse D. Diaz", written over a horizontal line.

Denisse D. Diaz, Chief
Clean Water Enforcement Branch
Water Protection Division

Enclosures

cc: Ms. Glenda Dean
Alabama Department of Environmental Management



ENCLOSURE A

At minimum, please provide the following information for the Oxford Tull C. Allen WWTP located at 2975 Silver Run Road in Oxford, Alabama (hereafter, "facility"). Additional information may be provided if deemed useful or explanatory. The majority of the response can be submitted either in scanned electronic form on compact disk or in paper form. Items 4 and 5 need to be submitted on compact disk.

1. Provide a timeline of the interference and/or pass-through event(s) which the facility or the facility's sewer system has experienced due to non-domestic discharges in the last five years. For each event, also provide:
 - a. the date/time the event began and ended,
 - b. discussion of the extent of the problems created for the facility, the facility's sewer system, and/or the facility's receiving waters,
 - c. discussion/reports of the investigation undertaken by the facility to isolate the source(s), and any evidence which was collected identifying the non-domestic source(s),
 - c. the facility's NPDES permit conditions violated due to the event,
 - d. discussion/copy of the actions the facility has independently taken under its local authority to enforce or address the problems caused by the non-domestic discharge(s), and
 - e. copy of any written notices given to ADEM concerning the event or the investigative findings.
2. Provide a copy of the facility's local Sewer Use Ordinance(s) which identify the discharge limitations for non-domestic users, and include the effective date(s).
3. Provide a schematic of the facility and explain its unit treatment processes and normal operating parameters for each unit. Identify the facility's overall design flow, and its average daily flow for each of the last five years.
4. Provide summaries of the facility's pollutant scans of the influent, effluent, and biosolids for the last five years. The summaries should identify the sampling dates, pollutants, analytical results, and units for individual parameters as well as a description of the sampling location.
5. Provide summaries of any collection system or isolated non-domestic user monitoring conducted in the last five years. The summaries should identify the sampling dates, pollutants, analytical results, and units for individual parameters as well as identifying the service trunk/area or user being monitored during the sampling event, using a sewer map if necessary.
6. If the facility has surveyed its non-domestic users, identified pollutants of concern, identified the maximum allowable headworks loadings, identified maximum allowable industrial loadings or background loadings pursuant to the EPA's Local Limits Development Guidance (7/2004), then please provide this information with an explanation of any calculations.





21

31

3

4

8

20

7. Provide a list of all non-domestic users, identifying: whether they haul their wastewater directly to the facility or discharge to the facility's sewer system, their addresses, brief descriptions of their individual business operations, and their estimated/actual average daily process flows.





ENCLOSURE B

RIGHT TO ASSERT BUSINESS CONFIDENTIALITY CLAIMS (40 C.F.R. Part 2)

Except for effluent data, you may, if you desire, assert a business confidentiality claim as to any or all of the information that EPA is requesting from you. The EPA regulation relating to business confidentiality claims is found at 40 C.F.R. Part 2.

If you assert such a claim for the requested information, EPA will only disclose the information to the extent and under the procedures set out in the cited regulations. If no business confidentiality claim accompanies the information, EPA may make the information available to the public without any further notice to you.

40 C.F.R. §2.203(b). **Method and time of asserting business confidentiality claim.** A business which is submitting information to EPA may assert a business confidentiality claim covering the information by placing on (or attaching to) the information, at the time it is submitted to EPA, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret," "proprietary," or "company confidential." Allegedly confidential portions of otherwise non-confidential documents should be clearly identified by the business, and may be submitted separately to facilitate identification and handling by EPA. If the business desires confidential treatment only until a certain date or until the occurrence of a certain event, the notice should so state.





	WAS FLOW	WAS	INF TSS	EFF TSS	MLSS	TSS %	INF BOD	EFF BOD	BOD %	30 MIN	1 HR	SVI	VSS	FSS	VSS %	S.A.	MCRT	F:M	NH3	
1-Aug	2.399	12086	0.012086	297	22	3084	93	108.9	12.8	88.2	600	450	195	1704	1380	55	11	60	0.03	
2-Aug	2.567	12093	0.012093	441	1	3068	100				700	510	228	1900	1168	62	7	98		
3-Aug	2.248	12075	0.012075	324	7.5	2840	98				700	500	246	1440	1400	51	8	82		
4-Aug	2.182	13098	0.013098	334	20	2976	94	98	14.7	85.0	650	450	218	1536	1440	52	10	60	0.03	
5-Aug	2.442	12081	0.012081	574	17.5	3008	97				630	470	209	2088	920	69	6	64	0.1	
6-Aug	2.403	13069	0.013069	507	15	2768	97	132.8	19.9	85.0	560	400	202	1576	1192	57	5	63	0.05	
7-Aug	2.435	13077	0.013077	471	10.5	2852	98				650	460	228	1532	1320	54	6	70	0.8	
8-Aug	2.315	14057	0.014057	318	3	2796	99	133.3	20	85.0	480	370	172	1580	1216	57	9	80	0.05	
9-Aug	2.858	15096	0.015096	541	4	3224	99				630	450	195	1684	1540	52	6	73	0.27	
10-Aug	2.342	16726	0.016726	573	6	3284	99				700	550	213	1820	1464	55	5	65	0.16	
11-Aug	2.156	15644	0.015644	737	7	3244	99	118.1	17.3	85.4	700	530	216	2132	1112	66	5	68	0.03	
12-Aug	2.631	16032	0.016032	363	4.5	2940	99				600	450	204	1700	1240	58	9	68	0.13	
13-Aug	2.497	16085	0.016085	404	3.5	2756	99	112.9	16.3	85.6	520	380	189	1716	1040	62	7	69	0.04	
14-Aug	2.379	17117	0.017117	384	4	2752	99				440	330	160	1628	1124	59	7	65	0.10	
15-Aug	2.3	17695	0.017695	615	6	2720	99	114.8	17.2	85.0	290	250	107	1364	1356	50	5	61	0.04	
16-Aug	2.194	19487	0.019487	790	5	2404	99				280	250	116	1128	1276	47	3	56	0.10	
17-Aug	2.049	21523	0.021523	720	8	2164	99				280	210	129	1052	1112	49	4	49	0.03	
18-Aug	2.525	20499	0.020499	359	4.5	2028	99	123.4	15.8	87.2	220	200	108	1172	856	58	5	53	0.06	
19-Aug	2.537	20513	0.020513	383	2	1944	99				190	170	98	1164	780	60	5	56	0.15	
20-Aug	2.601	18520	0.01852	269	5	1572	98	102.7	21.9	78.7	180	160	115	1008	564	64	6	54	0.07	
21-Aug	2.828	16693	0.016693	240	6	1660	98				180	150	108	920	740	55	6	56	0.13	
22-Aug	2.69	16003	0.016003	235	4	1660	98	88.7	18.5	79.1	170	150	102	924	736	56	6	64	0.06	
23-Aug	2.6	17698	0.017698	722	5	1656	99				160	140	97	760	896	46	2	57	0.12	
24-Aug	2.174	19435.6	0.0194356	297	4	1600	99				160	140	100	924	676	58	6	55	0.01	
25-Aug	2.326	19652.4	0.0196524	310	5	1416	98	125.4	9.2	92.7	160	150	113	816	600	58	5	52	0.08	
26-Aug	2.588	17743	0.017743	252	8	1456	97				140	130	96	912	544	63	5	49	0.13	
27-Aug	2.46	19645	0.019645	467	4	1548	99	122.2	21.1	82.7	140	130	90	976	572	63	3	54	0.08	
28-Aug	2.496	21556	0.021556	1862	10	1628	99				150	140	92	908	720	56	1	42		
29-Aug	2.307	22573	0.022573	212	7.5	1656	96	120.8	4.9	95.9	150	140	91	908	748	55	8	44	0.07	
30-Aug	2.199	20948	0.020948	288	8.5	1660	97				140	130	84	912	748	55	6	46		
31-Aug	2.343	21817	0.021817	393	7	1776	98				140	130	79	948	828	53	5	46		
AVG	EFF FLOW	WAS FLOW	WAS	INF TSS	EFF TSS	MLSS	TSS %	INF BOD	EFF BOD	BOD %	30 MIN	1 HR	SVI	VSS	FSS	VSS %	S.A.	MCRT	F:M	NH3
	2.422	17108	0.0171076	474	7	2327	98	116	16	86.0	377	293	162	1317	1010	57	5	59	0.05	0.24
MIN	2.049	12075	0.012075	212	1	1416	93	88.7	5	78.7	140	130	79	760	544	46	1	42	0.03	0.01
MAX	2.858	22573	0.022573	1862	22	3284	100	133.3	22	95.9	700	550	246	2132	1540	69	11	98	0.08	0.80032



1-Jul	3.074	8070	0.00807	129	10.5	2892	92	160.8	8.7	94.6	750	550	259	1560	1332	54	###	83	####	0.1
2-Jul	2.793	6944	0.006944	251	8	2760	97	128.3	17.6	86.3	620	450	225	1800	960	65	7	112	0.07	0.1
3-Jul	3.268	6662	0.006662	91	6	2448	93	87	5.9	93.2	550		225	1296			24	115	0.04	0.1
4-Jul	2.915	4033	0.004033	44	5	1760	89	123	15	87.8	240	200	136	1088	672	62	30	150	0.09	0.1
5-Jul	3.016	0	0	109	4	1724	96	44.9	14.6	67.5				868	856	50	13	350	0.03	0.2
6-Jul	2.977	0	0	87	7	1912	92	36.7	19	48.2				1164	748	61	18	225	0.02	0.3
7-Jul	2.772	0	0	172	16	2260	91	132.8	14	89.5	380	300	168	828	1432	37	11	125	0.07	0.0
8-Jul	2.924	0	0	162	13	2596	92	71.3	22.8	68.0	440	330	169	1244	1352	48	14	167	0.03	0.0
9-Jul	2.99	0	0	164	12	2524	93	130	18.3	85.9	480	350	190	1624	900	64	13	172	0.06	0.1
10-Jul	3.051	0	0	273	17	3080	94	121.9	3.7	97.0	650	450	211	1748	1332	57	9	146	0.05	0.11
11-Jul	2.823	0	0	160	14	3324	91	100.8	7.09	93.0	720	550	217	1976	1348	59	17	206	0.04	0.74
12-Jul	2.772	0	0	142	17	3072	88	162.8	7.9	95.1	630	450	205	1720	1352	56	19	160	0.06	0.01
13-Jul	2.717	4031	0.004031	217	17	2988	92	128	2.8	97.8	660	490	221	1600	1388	54	12	104	0.05	0.13
14-Jul	2.568	3030	0.00303	135	18	3112	87	73.5	8.2	88.8	680	500	219	2112	1000	68	22	117	0.02	0.09
15-Jul	2.468	4034	0.004034	295	16	3444	95				660	490	192	2116	1328	61	12	126		0.47
16-Jul	2.588	0	0	359	16	3440	96	108.2	6.7	93.8	740	510	215	2084	1356	61	9	204	0.03	1.43
17-Jul	2.5037	4032	0.004032	276	18.5	3460	93	90	6.2	93.1	700	540	202	2188	1272	63	12	114	0.03	2.43
18-Jul	2.269	7859	0.007859	120	1.5	3552	99	123.7	5.1	95.9	780	590	220	2700	852	76	32	147	0.03	0.38
19-Jul	2.399	4044	0.004044	218	31	3868	86	71.6	5.8	91.9	800	600	207	1864	2004	48	18	90	0.02	0.21
20-Jul	2.426	4042	0.004042	151	15	2800	90	59.5	5.4	90.9	720	550	257	1424	1376	51	19	116	0.02	0.30
21-Jul	2.205	0	0	152	15	3184	90	111.2	9.3	91.6	800	600	251	1608	1576	51	23	236	0.03	0.30
22-Jul	2.423	4045	0.004045	236	17.5	3580	93	92.7	8.4	90.9	620	450	173	1996	1584	56	15	123	0.03	0.18
23-Jul	2.482	7062	0.007062	176	17.5	3224	90	54.4	7.7	85.8	720	540	223	1780	1444	55	18	89	0.02	0.22
24-Jul	2.538	8059	0.008059	150	16	2952	89	155.6	8.8	94.3	700	500	237	1556	1396	53	19	82	0.05	0.36
25-Jul	2.537	8066	0.008066	173	18.5	3032	89	97.5	5.6	94.3	690	490	228	1704	1328	56	17	78	0.03	0.34
26-Jul	2.25	7041	0.007041	217	17	2988	92	156.3	6.4	95.9	680	510	228	1608	1380	54	15	91	0.05	0.43
27-Jul	2.236	8049	0.008049	361	17.5	2752	95	100.2	13.6	86.4	750	600	273	1140	1612	41	8	81	0.03	0.32
28-Jul	2.245	9211	0.009211	86	6	2628	93	168.7	20.3	88.0	660	500	251	1520	1108	58	33	104	0.06	0.19
29-Jul	2.525	5284	0.005284	226	3	2984	99	72.1	20.7	71.3	770	600	258	1604	1380	54	13	187	0.02	0.25
30-Jul	2.478	12006	0.012006	152	9.5	2844	94	150.2	16.8	88.8	670	500	236	1608	1236	57	19	76	0.05	0.91
31-Jul	2.444	12097	0.012097	262	5.5	2992	98				750	670	251	1684	1308	56	11	86		0.59
AVG	EFF FLOW	WAS FLOW	WAS	INF TSS	EFF TSS	MLSS	TSS %	INF BOD	EFF BOD	BOD %	30 MIN	1 HR	SVI	VSS	FSS	VSS %	S.A.	MCRT	F:M	NH3
	2.654	4442	0.0044420	185	13	2909	93	107	11	90.0	656	495	225	1639	1274	56	14	118	0.04	0.37
MIN	2.205	0	0	44	1.5	1724	86	36.7	3	48.2	240	200	136	828	672	37	###	76	####	0.03
MAX	3.674	12097	0.012097	361	31	3868	99	168.7	23	97.8	800	670	273	2700	2004	76	###	350	####	2.43

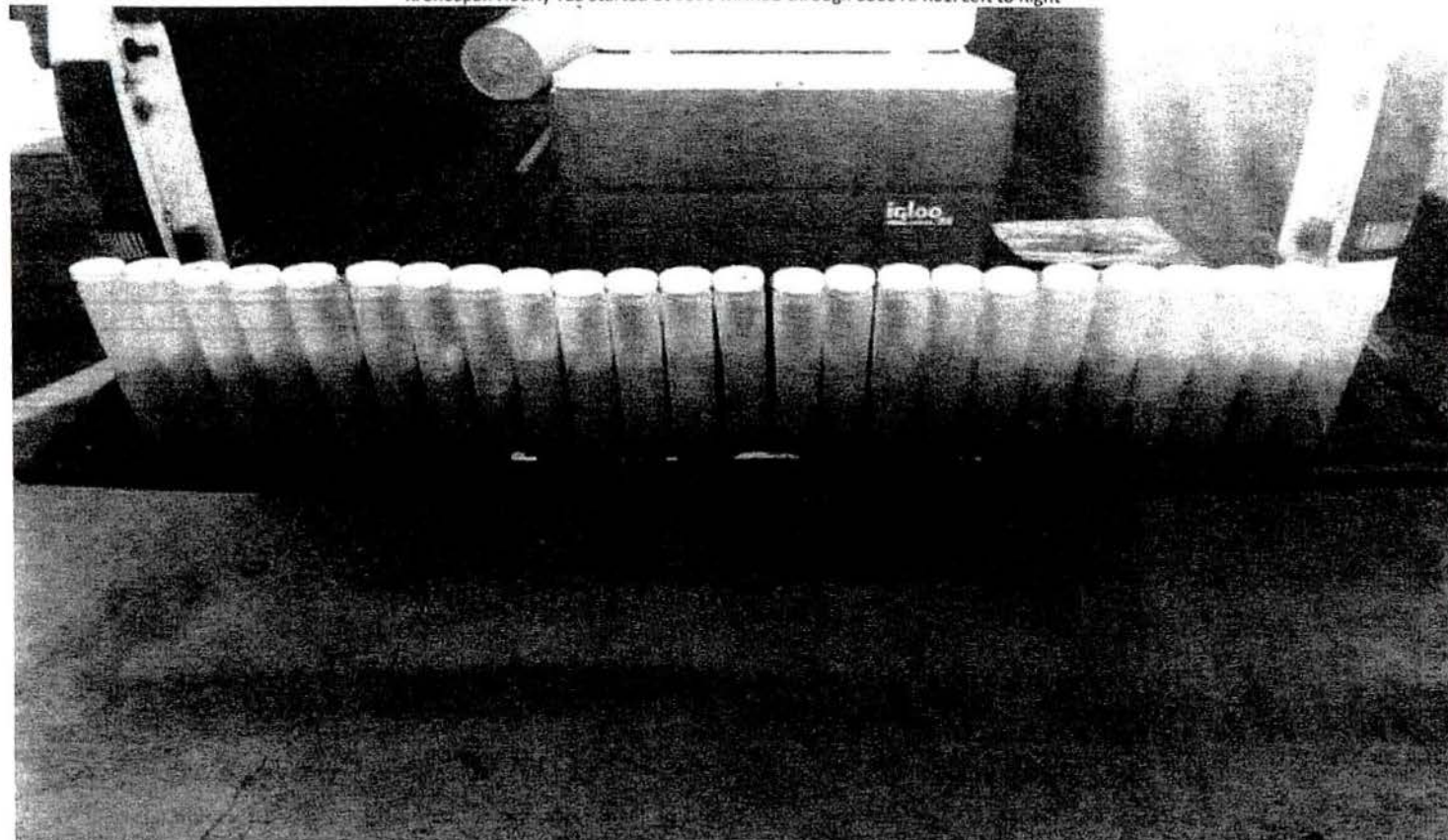
1

1-Sep	2.116	20787	0.020787	658	7	1508	99	121.3	18	85.2	150	140	99	876	632	58	###	48	####	0.21
2-Sep	2.136	21591	0.021591	516	6	1432	99	92.7	5.9	93.6	130	130	91	780	652	54	3	47	0.06	0.21
3-Sep	2.321	21888	0.021888	972	7.5	1428	99	111.3	16.5	85.2	130	130	91	876	552	61	2	44	0.07	0.51
4-Sep	3.178	22193	0.022193	377	5	1496	99	117.4	16.6	85.9	140	130	94	992	504	66	4	45	0.07	0.94
5-Sep	2.815	21799	0.021799	233	10.5	1492	95	145.3	19.2	86.8	150	140	101	932	560	62	5	39	0.13	
6-Sep	2.403	19587	0.019587	904	7	1712	99	131	19.7	85.0	140	130	82	904	808	53	2	50	0.09	
7-Sep	2.312	20496	0.020496	830	8	1840	99				160	140	87	1100	740	60	2	48		
8-Sep	2.329	22001	0.022001	1388	7	1604	99	148.5	20.3	86.3	150	140	94	1060	544	66	1	45	0.09	1.61
9-Sep	2.416	21224	0.021224	1559	4	1496	100				140	130	94	816	680	55	1	50		0.92
10-Sep	2.442	23242	0.023242	1090	9	1436	99	125.4	18.6	85.2	150	140	104	784	652	55	1	40	0.09	1.87
11-Sep	2.592	23597.5006	0.0235975	420	6	1480	99	164.7	20.4	87.6	140	130	95	776	704	52	4	43	0.11	
12-Sep	2.519	24215	0.024215	310	13	1440	96				125	100	87	628	812	44	4	35		
13-Sep	2.436	21815	0.021815	985	7	1464	99	119	6.4	94.6	130	120	89	728	736	50	1	44	0.08	
14-Sep	2.308	19616	0.019616	483	6.5	1424	99	159.3	5.3	96.7	140	130	98	752	672	53	3	49	0.11	
15-Sep	2.216	17720.1996	0.0177202	472	4.5	1304	99	138.7	20.5	85.2	140	130	107	752	552	58	3	57	0.10	0.72
16-Sep	2.502	15913.9999	0.015914	163	6.5	1516	96				160	140	106	796	720	53	9	58		
17-Sep	2.364	16214.5996	0.0162146	377	6.5	1460	98	115.8	17.3	85.1	160	140	110	1008	452	69	4	57	0.08	0.56
18-Sep	2.347	17810.4004	0.0178104	800	7	1468	99	120.6	18	85.1	170	150	116	820	648	56	2	52	0.08	0.95
19-Sep	2.206	18817.9993	0.018818	738	6	1552	99	133.8	18.9	85.9	160	140	103	892	660	57	2	53	0.08	0.97
20-Sep	2.35	19103.5995	0.0191036	484	7	1508	99	130.4	19.5	85.0	180	150	119	856	652	57	3	50	0.08	
21-Sep	2.137	7875.0999	0.0078751	376	5	1480	99	137.8	20.6	85.1	170	140	115	872	608	59	5	107	0.08	0.79
22-Sep	2.041	18273.3994	0.0182734	423	10	1452	98	137.4	19.8	85.6	190	160	131	812	640	56	4	49	0.08	0.46
23-Sep	2.259	18192.7002	0.0181927	773	3.5	1296	100				150	140	116	580	716	45	2	58		0.46
24-Sep	2.276	20538.9999	0.020539	624	5	1432	99				150	140	105	696	736	49	2	50		0.73
25-Sep	2.132	19065.8997	0.0190659	425	6	1348	99	133.5	19.5	85.4	140	130	104	696	652	52	4	52	0.09	1.88
26-Sep	2.155	19282.4005	0.0192824	436	7	1232	98				140	120	114	740	492	60	3	48		
27-Sep	2.135	12915.6998	0.0129157	94	3.5	1360	96				120	115	88	720	640	53	17	78		
28-Sep																				
29-Sep																				
30-Sep																				
1-Oct																				

AVG	EFF FLOW	WAS FLOW	WAS	INF TSS	EFF TSS	MLSS	TSS %	INF BOD	EFF BOD	BOD %	30 MIN	1 HR	SVI	VSS	FSS	VSS %	S.A.	MCRT	F:M	NH3
	2.350	19473	0.0194732	626	7	1469	99	131	17	87.1	148	134	101	824	645	56	2	49	0.09	0.87
MIN	2.041	7875.0999	0.0078751	94	3.5	1232	95	92.7	5	85.0	120	100	82	580	452	44	###	35	####	0.20
MAX	3.178	24215	0.024215	1559	13	1840	100	164.7	21	96.7	190	160	131	1100	812	69	###	107	####	1.88



Kronospan Hourly TSS Started at 0800 MAR31 through 0800 APR01. Left to Right



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
860	880	984	1068	936	942	992	968	526	508	281	291	283	984	782	468	392	635	1042	928	1106	1088	1038	942	1106	281	789

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
98.3	6.58	792	2.38	4.39	3440		3219

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG	
824	944	844	976	689	709	685	506	419	552	406	304	350	553	606	762	651	434	479	626	782	810	968	5650	5650	304	855	
COMPOSITE																											
TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD																				
99.5	6.12	930	1.884	2.19	3278	2792																					

A black and white photograph showing the rear of a truck. The truck bed is filled with a large, rectangular object, possibly a piece of equipment or a container, which is secured with several dark straps. The truck is parked on a paved surface, and the background is slightly out of focus, showing some industrial structures.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG	
363	397	335	352	183	162	134	261	373	156	159	309	214	137	304	238	536	600	727	910	259	130	246	255	910	130	323	
COMPOSITE																											
TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD																				
99	6.36	336	1.851	2.39	1210	2468																					

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG	
338	205	226																							338	205	256
COMPOSITE																											
TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD	POWER CUT OFF																			
92.1	6.11	199																									

Kronospan Hourly TSS Started at 0800 APR04 through 0800 APR05. Left to Right



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
																								0	0	#DIV/0!

1 COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
88.9	6.82	116	43.6		680		



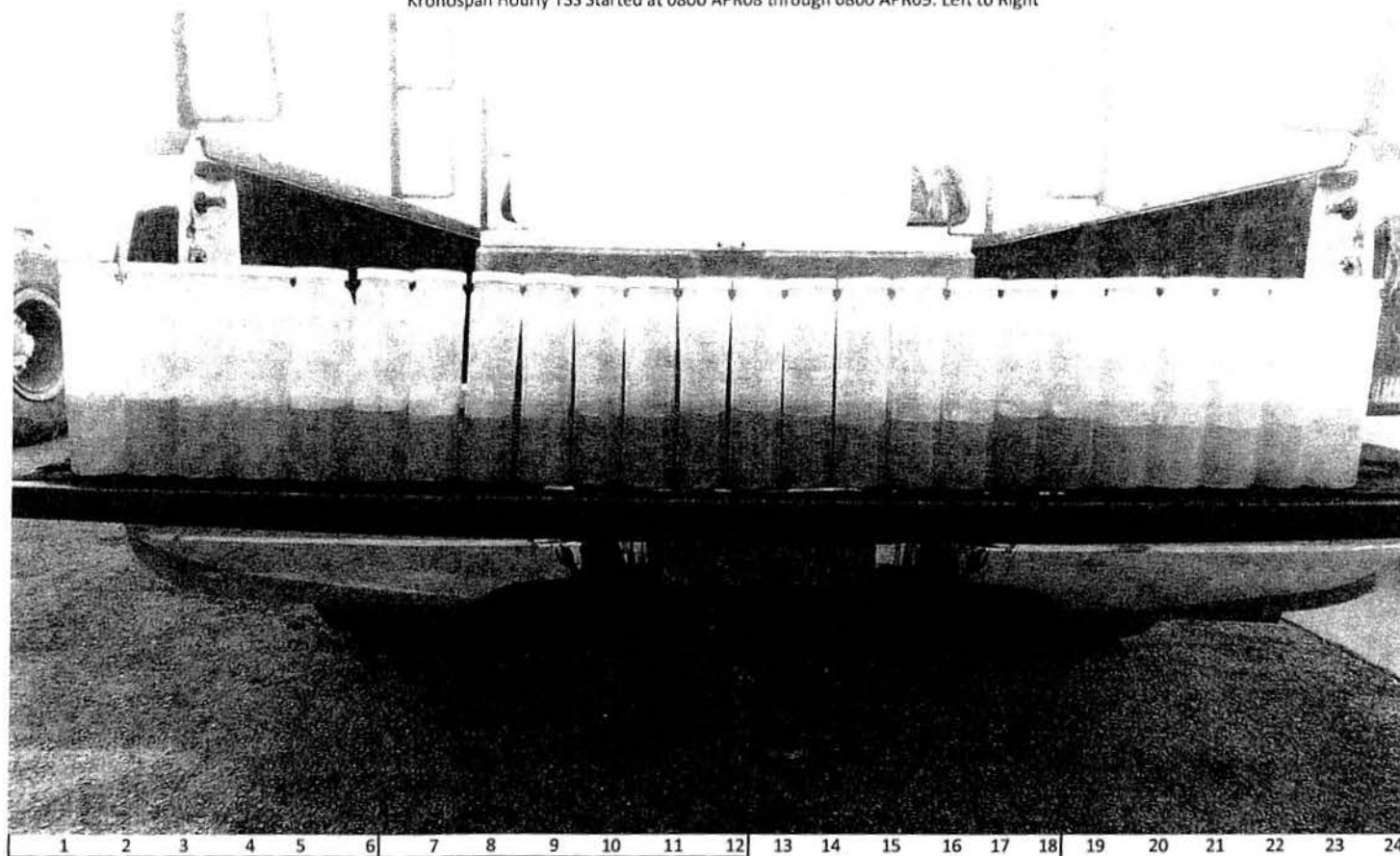
COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
79.3	6.9	79	10.81				

MIN 0
AVG 0 #DIV/0!

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
141	152	1654	702	275	176	237	153	160	102	134	105	98	85	78	78	92	85	90	79	113	65	64	85	1654	64	208
COMPOSITE																										
TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD																			
95.3	6.62	198	3.59	2.41	2950	2152																				

Kronospan Hourly TSS Started at 0800 APR08 through 0800 APR09. Left to Right

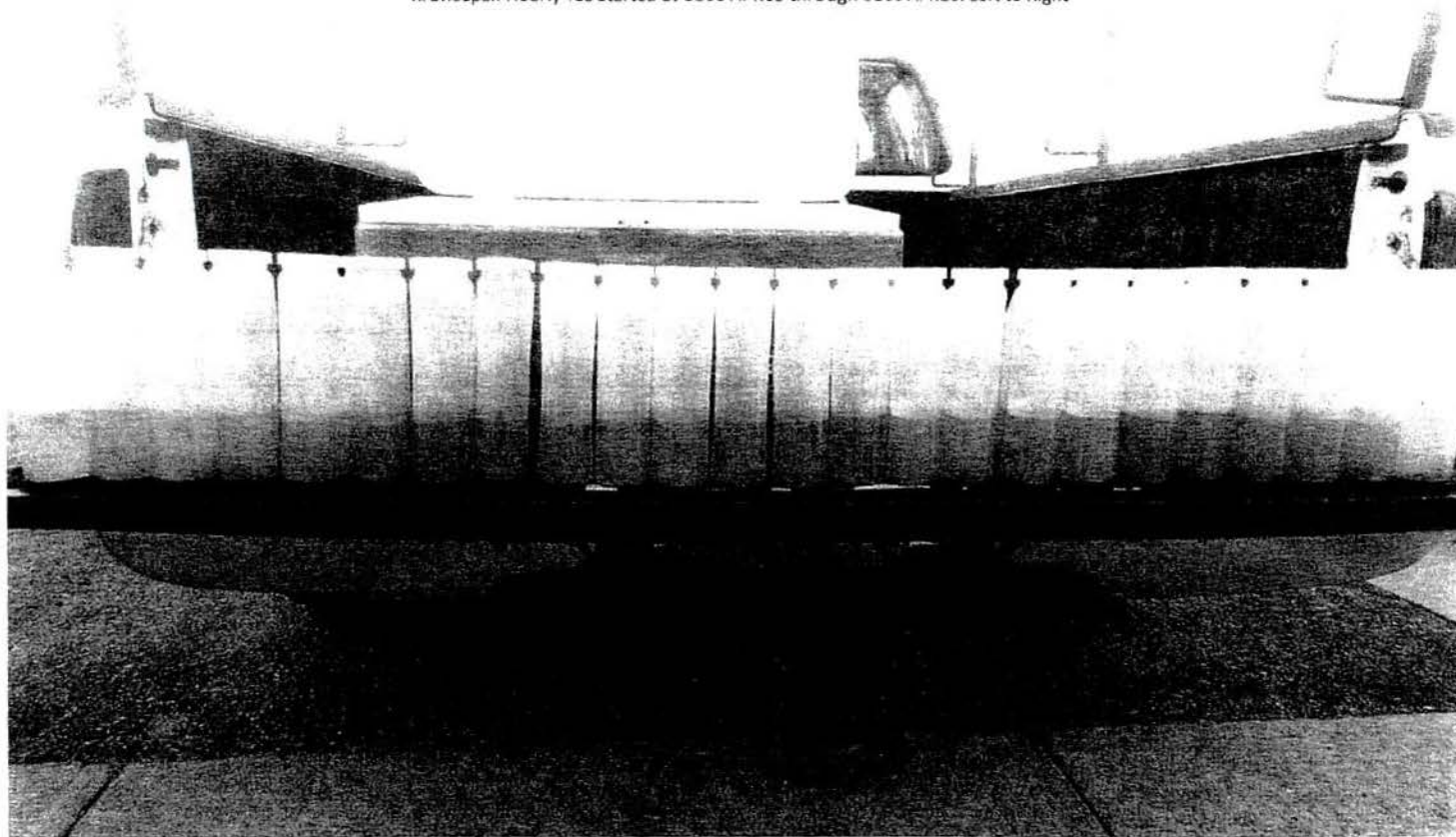


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 MAX MIN AVG
0 0 #DIV/0!

1 COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
99.1	7.04	252	3.05	1.94	2130		2721

Kronospan Hourly TSS Started at 0800 APR09 through 0800 APR10. Left to Right

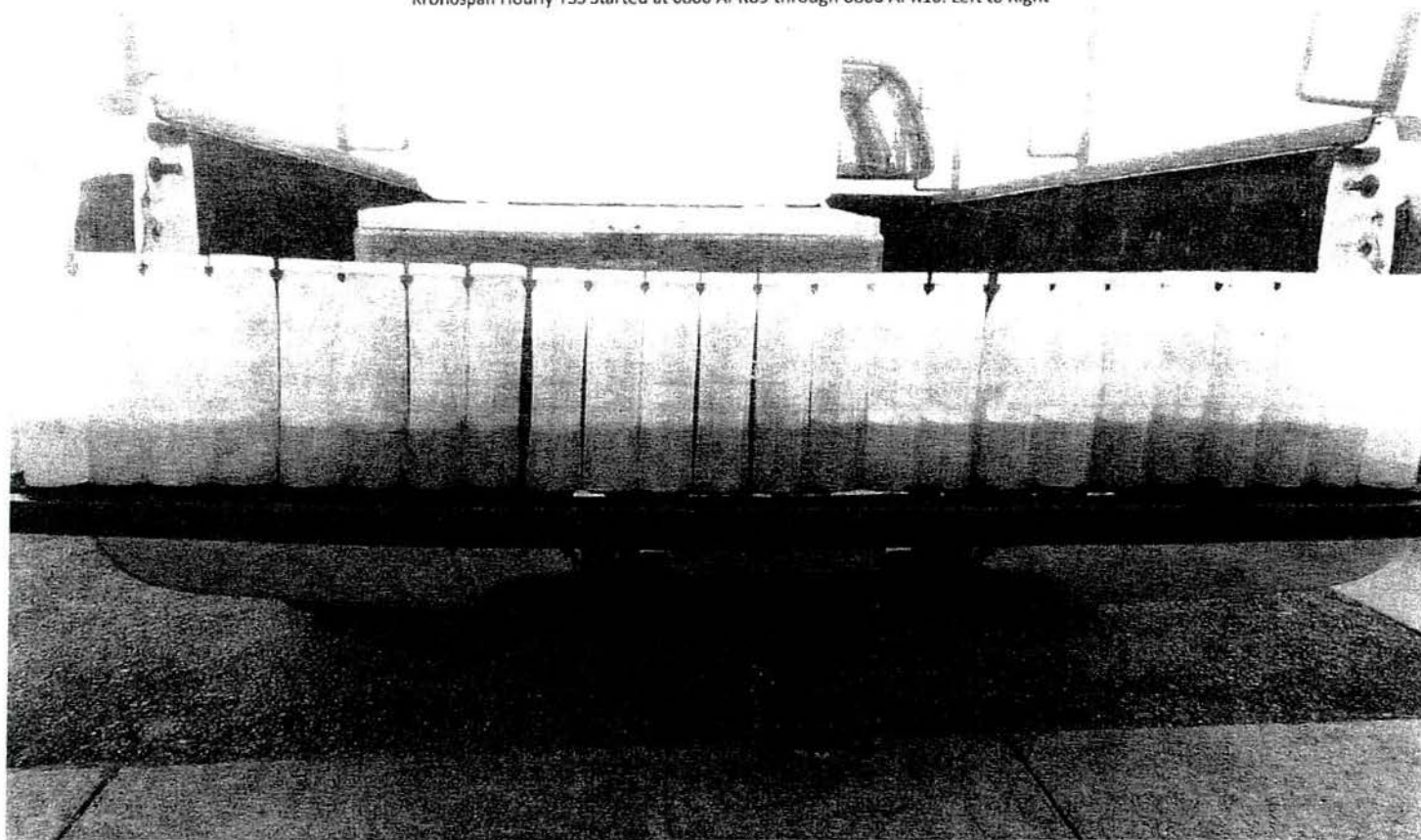


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
135	172	150	159	164	182	149	172	121	109	96	94	123	237	164	139	119	133	198	228	207	195	321	264	321	94	168

{ COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
95.1	6.13	161	11.19	3.67	2036		2357

Kronospan Hourly TSS Started at 0800 APR09 through 0800 APR10. Left to Right

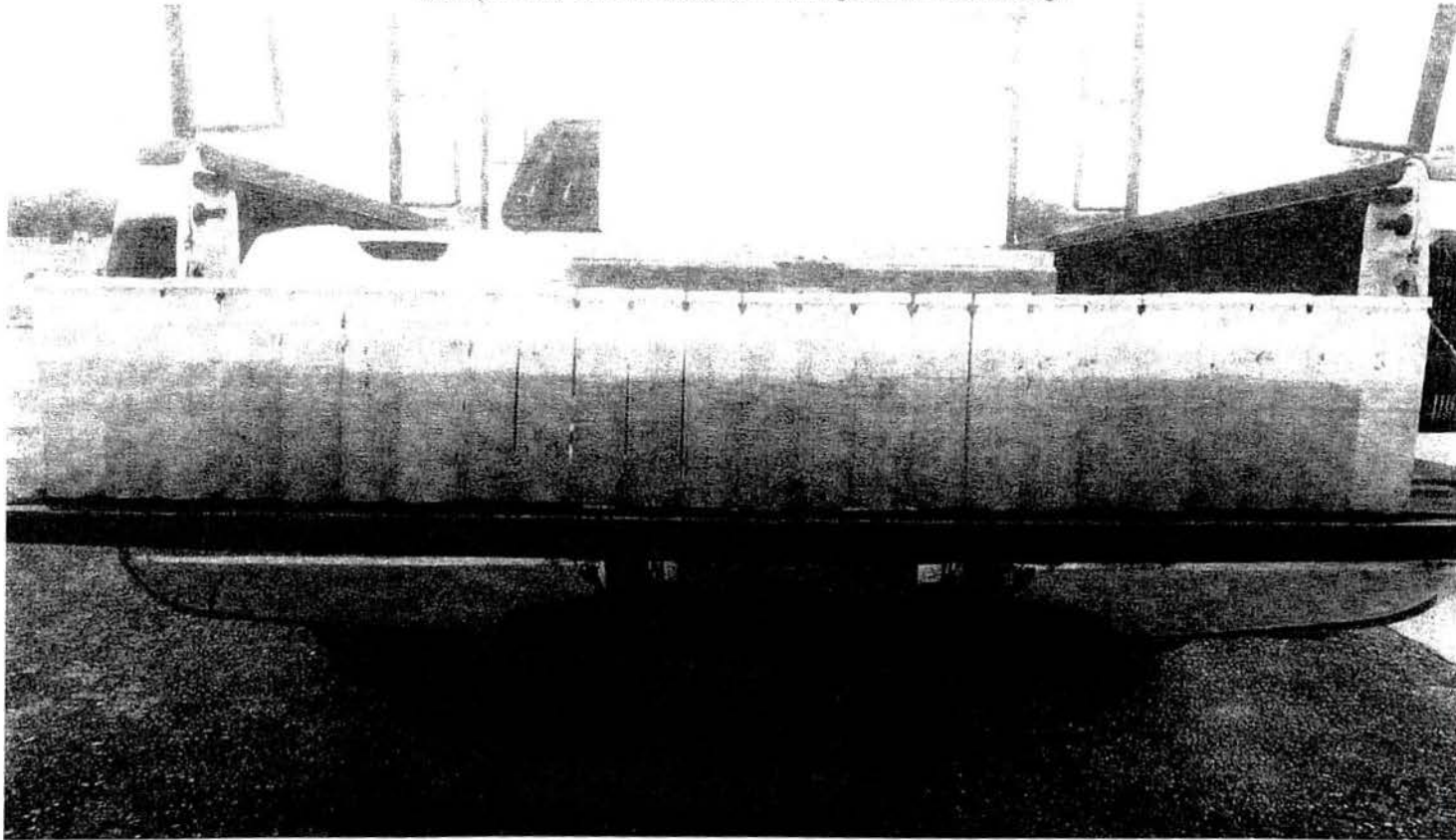


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
167	184	202	170	257	303	200	260	330	320	171	128	121	105	151	209	157	161	120	172	130	145	160	171	330	105	187

{ COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
88.7	6.72	171	11.99	6.19	1380		2505

Kronospan Hourly TSS Started at 0800 APR14 through 0800 APR15. Left to Right



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
99	110	112	111	87	78	106	117	78	84	98	75	53	56	56	113	125	69	90	74	66	83	67	60	125	53	86

COMPOSITE

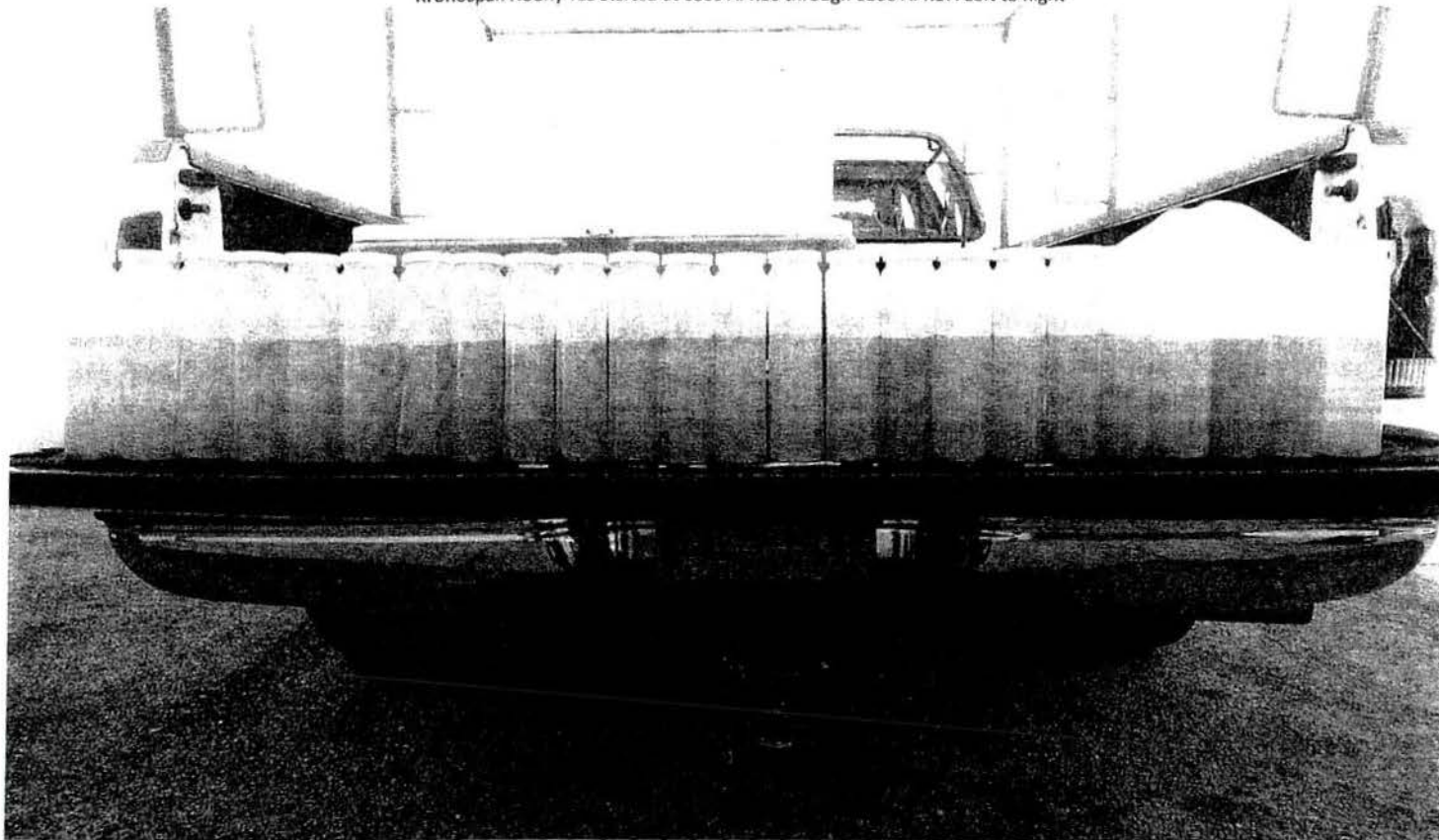
TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
89.2	6.17	89	3.15	4.38	1960		1351

A black and white photograph showing a large, dark, rectangular object, possibly a piece of machinery or a container, lying horizontally on a light-colored surface. The object has a series of vertical lines or rivets along its top edge. In the background, a vehicle is partially visible, and the scene appears to be outdoors.

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
92	7.03	69	7.28	2.33	920		1816

Kronospan Hourly TSS Started at 0800 APR16 through 0800 APR17. Left to Right

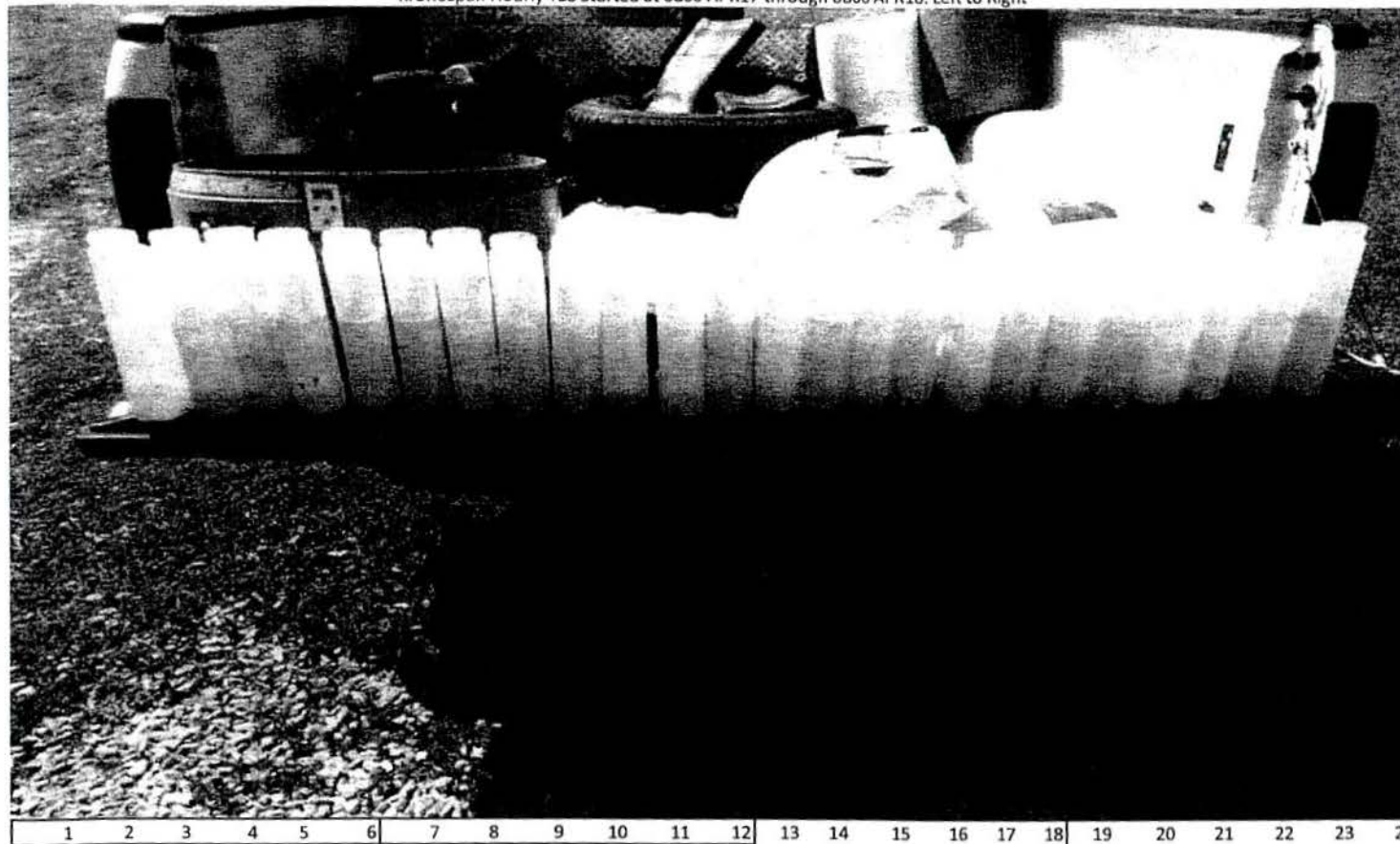


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
74	55	84	124	57	62	74	93	381	60	62	84	68	72	80	72	59	58	84	75	65	88	73	66	381	55	86

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
97	6.81	89	11.76	2.16	880		3246

Kronospan Hourly TSS Started at 0800 APR17 through 0800 APR18. Left to Right

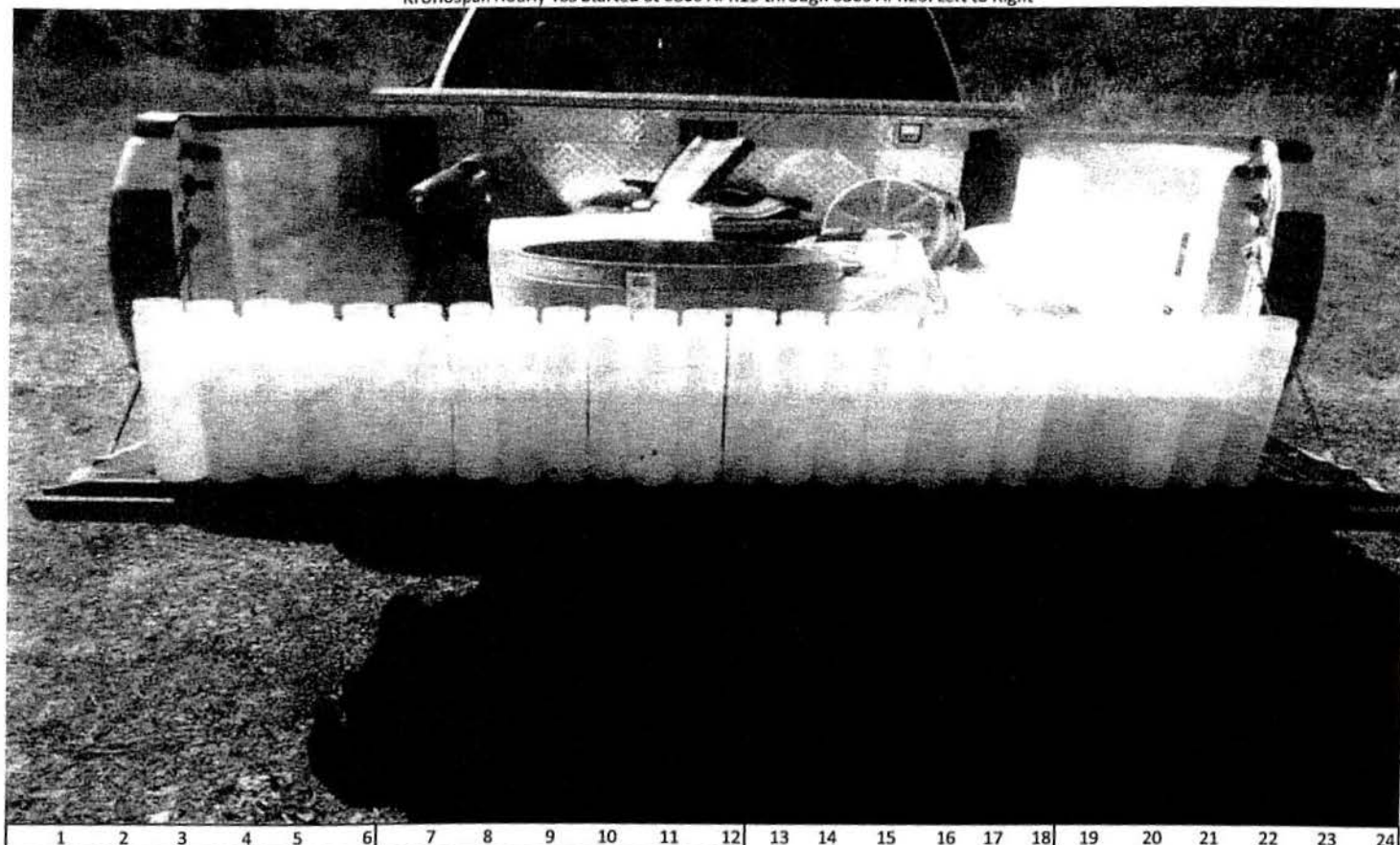


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 MAX MIN AVG

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
96	6.86	139	10.94				

Kronospan Hourly TSS Started at 0800 APR19 through 0800 APR20. Left to Right

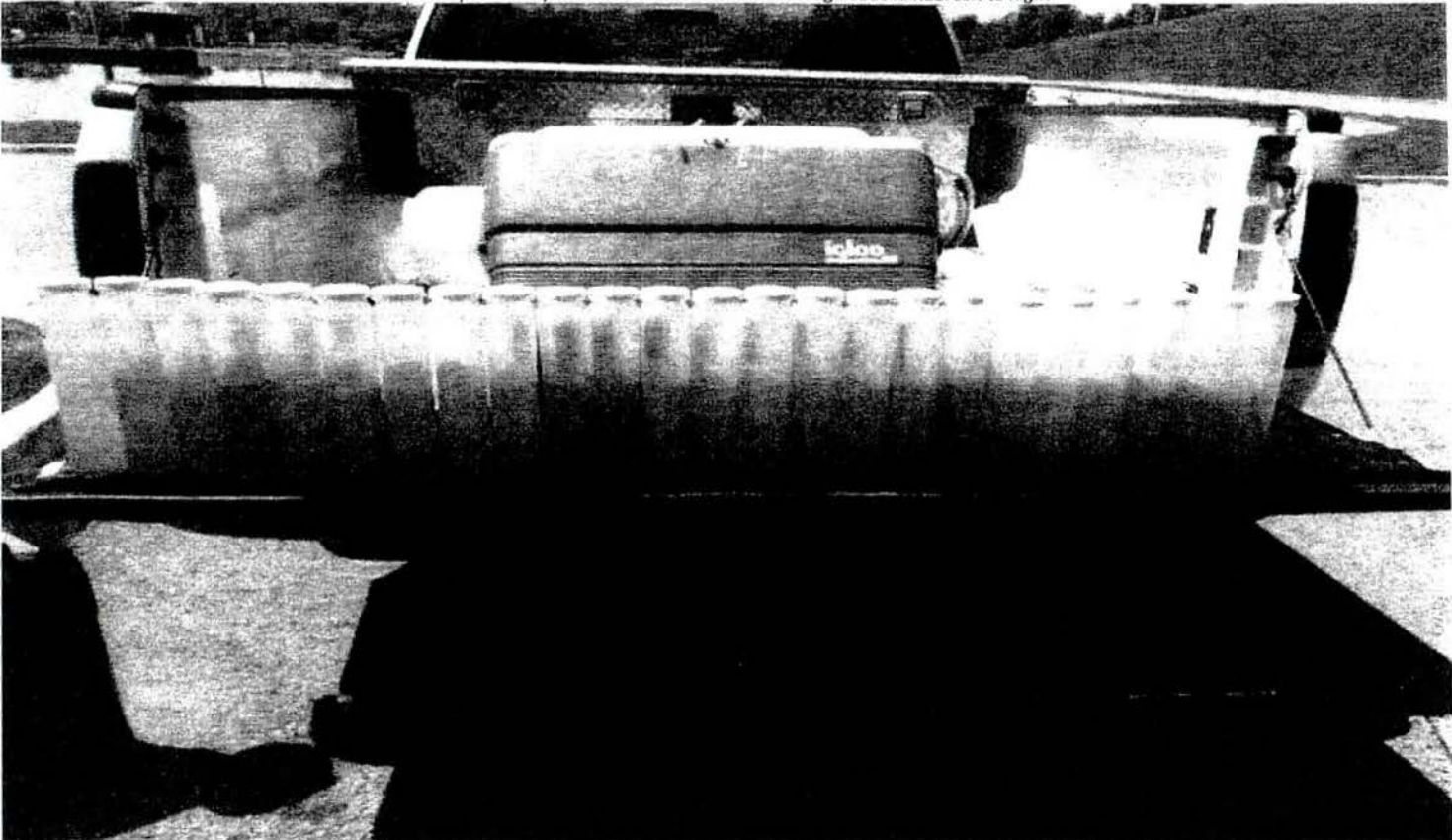


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 MAX MIN AVG

1 COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
99	6.91	75	9.84				

Kronospan Hourly TSS Started at 0800 APR20 through 0800 APR21. Left to Right



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 MAX MIN AVG

COMPOSITE

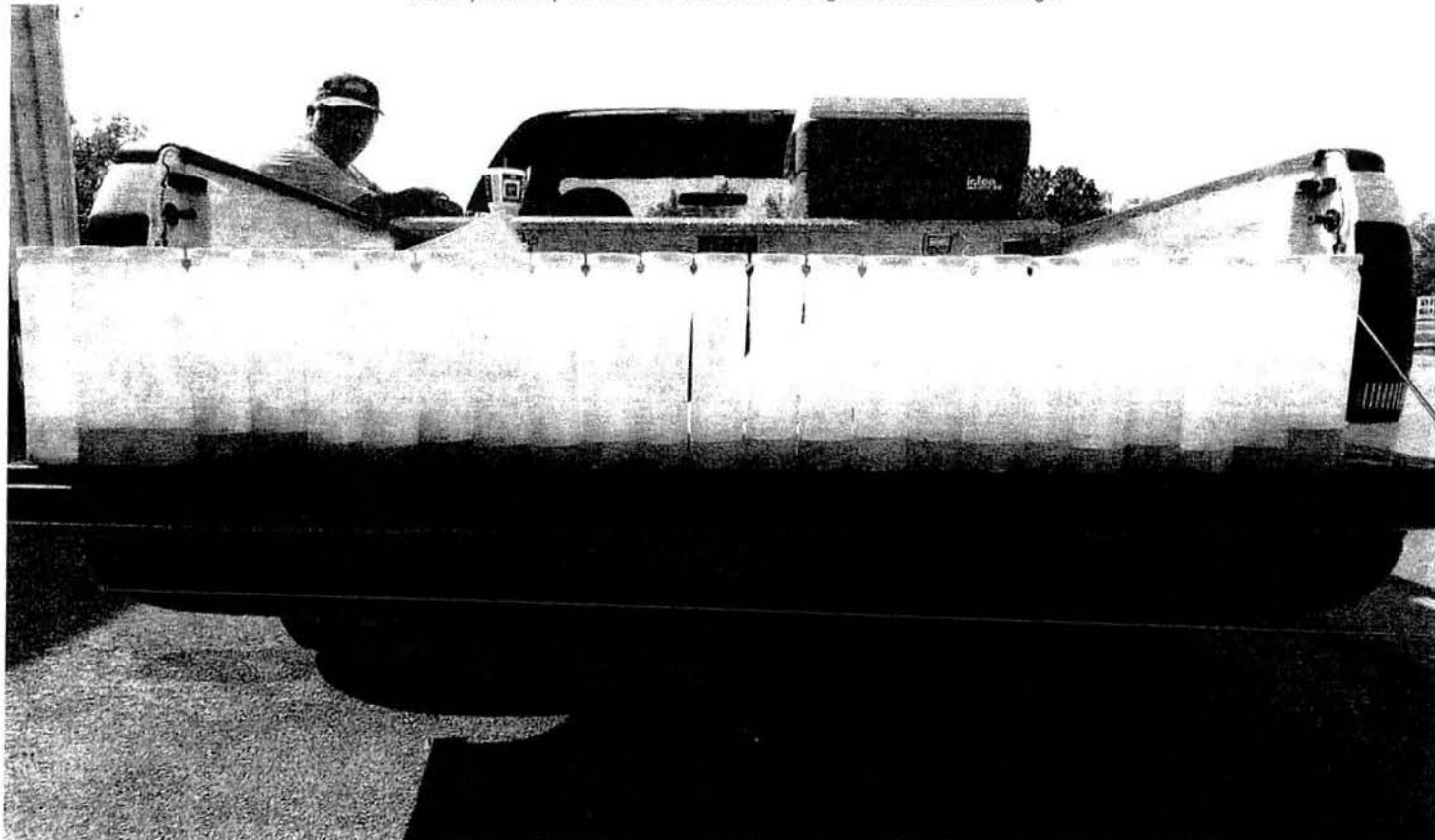
TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
77.2	6.03	91	4.56	1.21			

11

A high-contrast, black and white photograph of a large, dark, cylindrical object, possibly a ship's hull or a large barrel, lying horizontally. The object is heavily shadowed, with bright highlights on its upper surface. The background is bright and overexposed, showing some indistinct shapes and structures.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG	
137	167	127	112	139	183	204	192	142	160	112	141	103	143	127	130	129	117	141	124	102	147	107	156	204	102	139	
COMPOSITE																											
TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD																				
95.5	6.88	143	4	2.67	860	2157																					

Kronospan Hourly TSS Started at 0800 APR23 through 0800 APR24. Left to Right

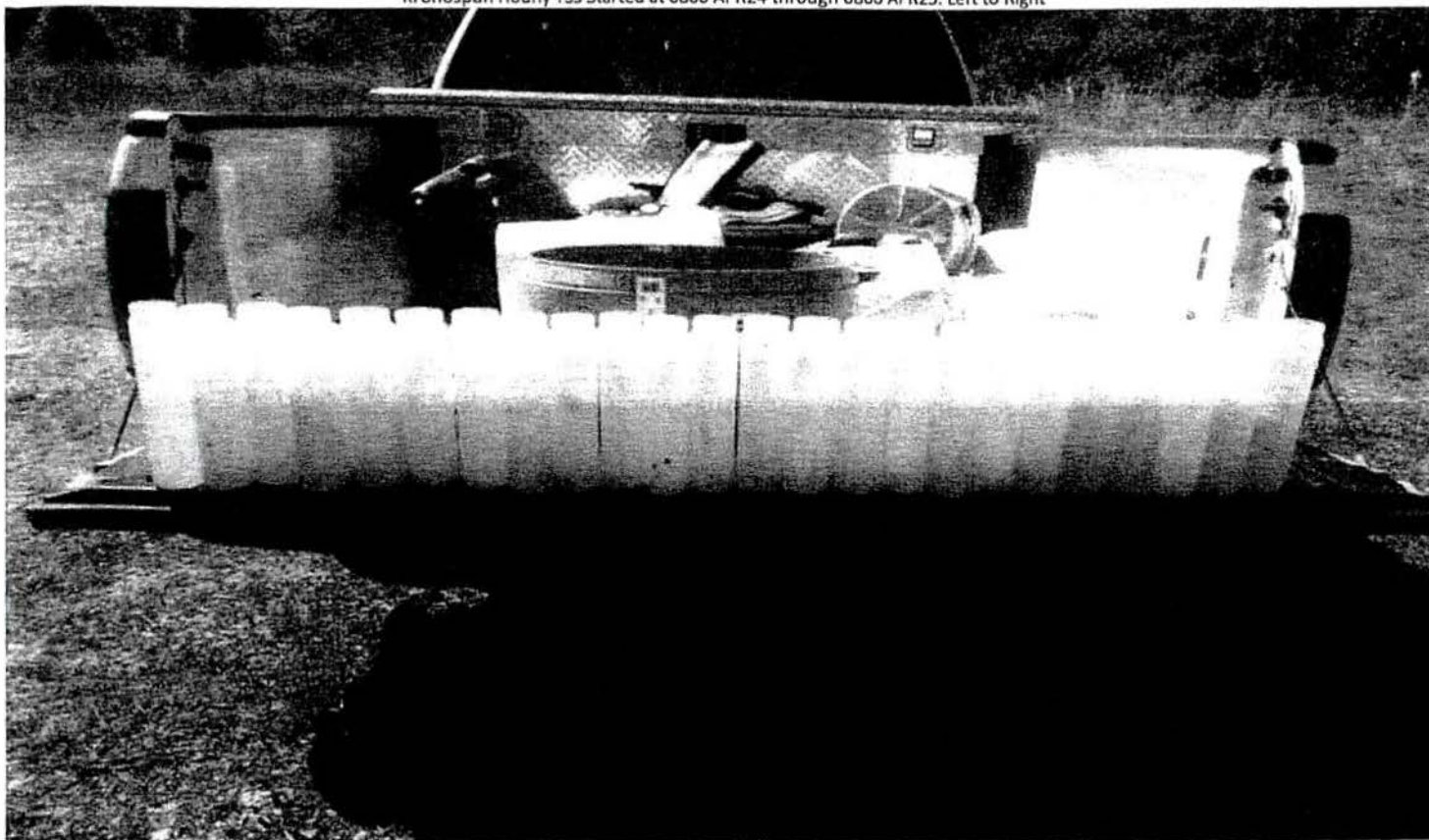


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
216	262	215	591	1234	1532	1522	1422	713	481	418	339	327	321	344	266	278	274	228	331	329	311	246	234	1532	215	518

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
98.6	6.91	527	3.58	4.26	2260		1346

Kronospan Hourly TSS Started at 0800 APR24 through 0800 APR25. Left to Right



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
78	182	164	168	152	143	94	85	79	154	94	76	64	122	116	134	164	118	126	86	76	64	94	61	182	61	112

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
99.6	6.68	124	5.29	3.46	1680		1342

Kronospan Hourly TSS Started at 0800 APR28 through 0800 APR29. Left to Right

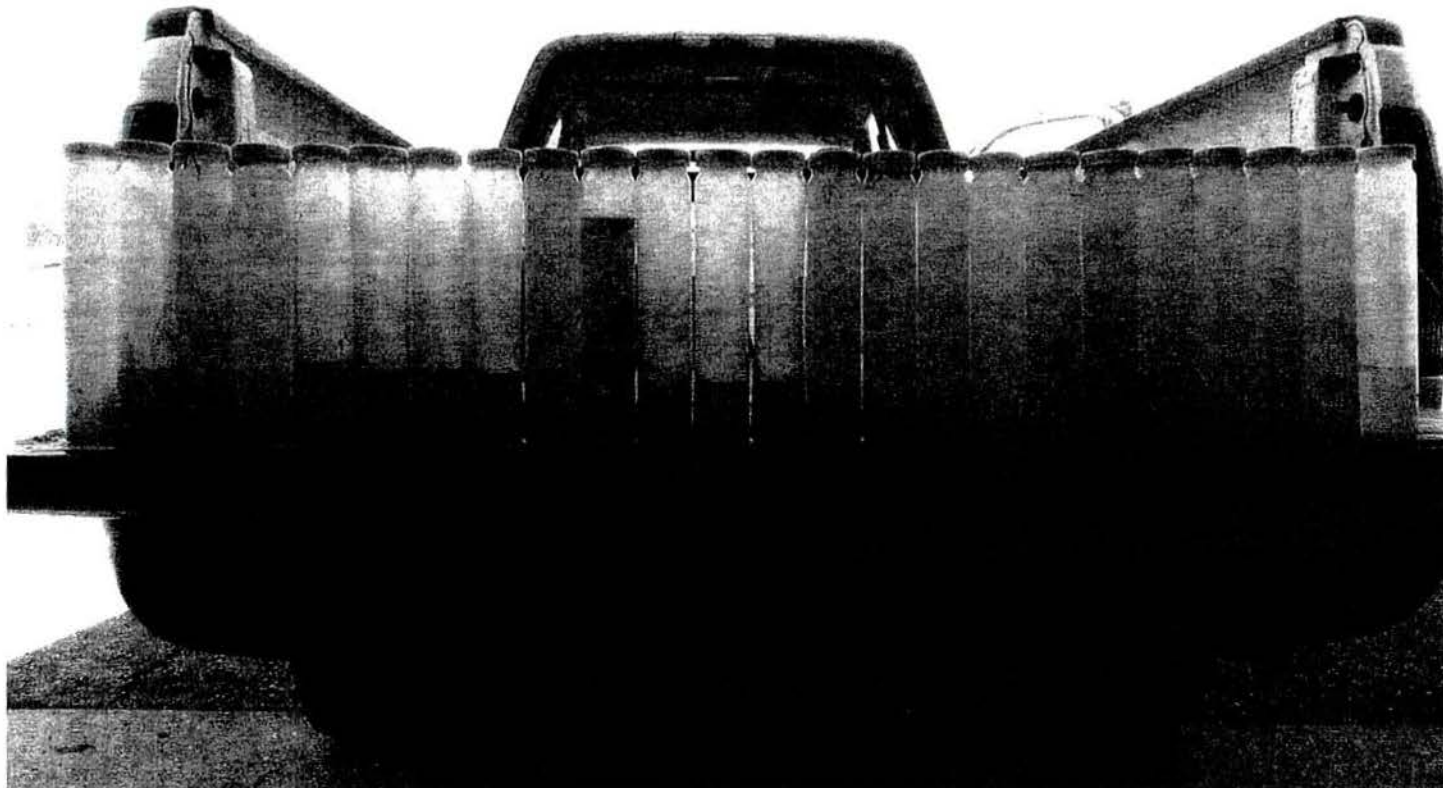


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
244	209	215	163	164	183	205	143	216	160	120	136	159	139	121	90	147	128	135	194	151	155	183	149	244	90	163

R COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
98.2	6.64	167	6.56	4.95	1870		1362

Kronospan Hourly TSS Started at 0800 APR30 through 0800 MAY01. Left to Right



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
90	278	116	143	154	390	319	226	176	142	137	208	244	139	124	130	152	119	126	133	111	103	101	114	390	90	166

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
99.3	6.29	174	6.81	4.29	1962		2108

Kronospan Hourly TSS Started at 0800 MAY05 through 0800 MAY06. Left to Right

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
																									0	0 #DIV/0!

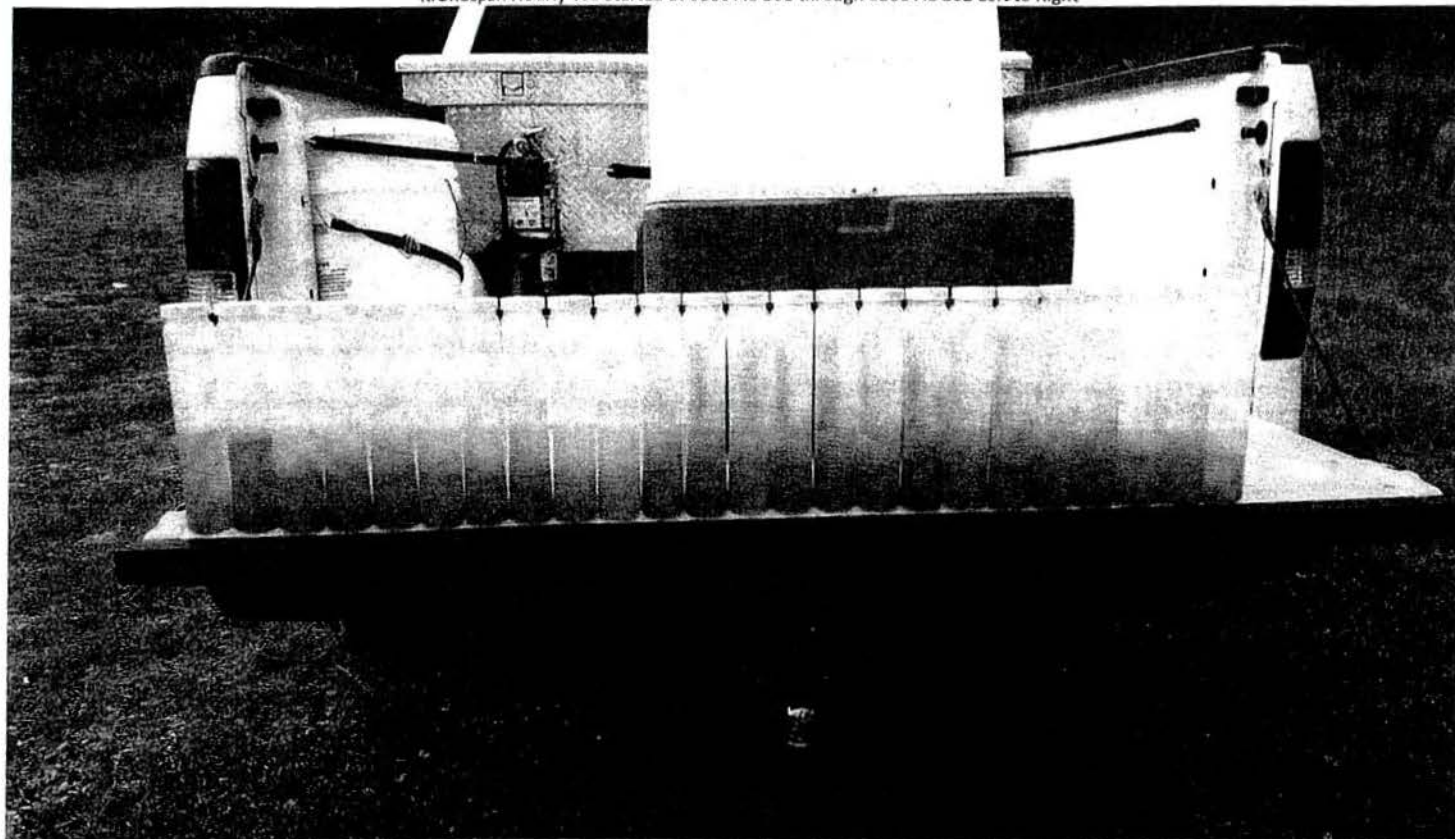
{ COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
98.3	6.92	111	4.73	5.16	1236		1642

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
		177	2.45	1.67	1803		1898

Kronospan Hourly TSS Started at 0800 AUG01 through 0800 AUG02 Left to Right

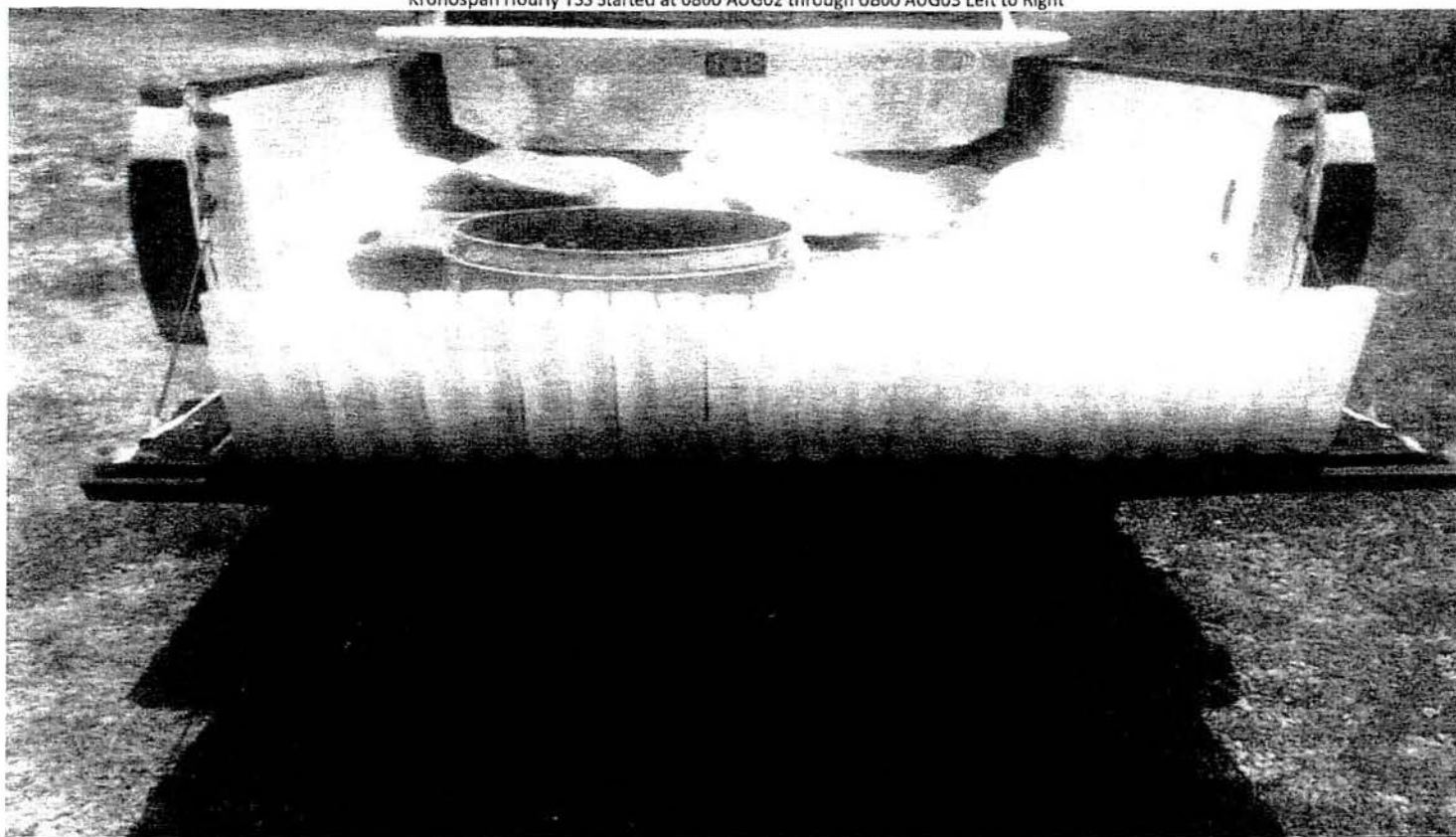


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 MAX MIN AVG
0 0 #DIV/0!

{ COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
92.7	6.83	342	7.72	3.18	1742		1112

Kronospan Hourly TSS Started at 0800 AUG02 through 0800 AUG03 Left to Right



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

MAX	MIN	AVG
	0	0 #DIV/0!

{ COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
93.4	6.42	226	0.339	2.56	1622		

Kronospan Hourly TSS Started at 0800 AUG03 through 0800 AUG04 Left to Right



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG
151	104	187	239	174	151	137	169	182	168	138	86	182	189	177	166	124	190	130	192					239	86	162

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
75.9	7.42	156	0.088	0.67	1240		1042

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MAX	MIN	AVG	
317	177	171	180	101	83	81	164	448	514	428	195	153	320	156	237	331	186	183	174	176	124	103	264	514	81	219	
COMPOSITE																											
TEMP		PH		TSS		NH3		P		COLOR		HCHO		COD													
88		6.77		206		1.53		2.18		1190		866															

A black and white photograph showing the rear of a white pickup truck. The truck is parked on a dark, textured surface, possibly asphalt. In the bed of the truck, there is a large, light-colored wooden crate or pallet. The crate has several vertical slats or dividers. The truck's tailgate is down, and the rear window is visible. The image is grainy and has a high-contrast, somewhat washed-out appearance.

COMPOSITE

TEMP	PH	TSS	NH3	P	COLOR	HCHO	COD
90.1	6.73	182	2.78	2.94	1050		725